

LEGISLATIVE BRANCH APPROPRIATIONS FOR FISCAL YEAR 2017

TUESDAY, MARCH 15, 2016

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 3:00 p.m., in room SD-192, Dirksen Senate Office Building, Hon. Shelley Moore Capito (chairman) presiding.

Present: Senators Capito and Schatz.

LIBRARY OF CONGRESS

STATEMENT OF DAVID MAO, ACTING LIBRARIAN OF CONGRESS

ACCOMPANIED BY:

ROBERT NEWLEN, CHIEF OF STAFF
MARIA PALLANTE, REGISTER OF COPYRIGHTS
MARY MAZANEC, DIRECTOR, CONGRESSIONAL RESEARCH SERVICE
MARK SWEENEY, ASSOCIATE LIBRARIAN FOR LIBRARY SERVICES
JANE McAULLIFE, DIRECTOR, NATIONAL AND INTERNATIONAL PROGRAM
BERNARD BARTON JR., CHIEF INFORMATION OFFICER
ROBERTA SHAFFER, LAW LIBRARIAN OF CONGRESS
MARY KLUTTS, CHIEF FINANCIAL OFFICER
KAREN KENINGER, DIRECTOR, NLS BOOKS FOR THE BLIND AND PHYSICALLY HANDICAPPED
CARL CARSON III, BUDGET OFFICER

OPENING STATEMENT OF SENATOR SHELLEY MOORE CAPITO

Senator CAPITO. Good afternoon. The subcommittee will come to order, and I would like to welcome everyone to the third and final fiscal year 2017 budget hearing for the Legislative Branch Appropriations Subcommittee.

Today, we will have two panels of witnesses. The first panel will include Mr. David Mao, the Acting Librarian of Congress. At the completion of Mr. Mao's testimony and the subsequent questions and answers with the Library, we will turn to the Architect of the Capitol, the Honorable Stephen T. Ayers, for our second panel. The point of bringing that up is, Mr. Mao, you can leave after the first panel.

I would like to start by welcoming you, Mr. Mao. You have been the Acting Librarian since Dr. Billington's retirement at the end of September 2015, and you and I have had a couple of conversations.

You have been the Deputy Librarian since January 12, 2015, although you have been with the Library for 11 years.

So, in Library terms, you are a newcomer, but you have obviously proven your dedication and commitment to the Library by working in several positions. We appreciate your willingness and abilities to do that, including working for the Congressional Research Service, the Law Library, and the Librarian's office.

I understand there are several members of the senior leadership team here today, and want to extend the subcommittee's appreciation to all of you for the tremendous work that you do supporting the Congress, keeping the Nation informed, and maintaining the history of our country as well as many other countries around the world.

Thank you all for being here with us today for this important discussion on how the Library is planning to move forward in the coming fiscal year.

I would note that the Library's total fiscal year 2017 budget request is \$667.2 million, a \$67.3 million or 11.2 percent increase over fiscal year 2016. Included within this requested increase is funding for an additional 99 full-time equivalents. Given the continued budget constraints within which we operate, it will be important to hear from you about the most critical priorities for the Library, because we may not, and probably will not, be able to fully fund all of the requested increases.

And now, I would like to turn to the ranking member, Senator Schatz, for any opening statements he would like to make.

STATEMENT OF SENATOR BRIAN SCHATZ

Senator SCHATZ. Thank you, Chairman Capito. I will address my opening remarks to both panels in the interest of time. I want to welcome our witnesses, Acting Librarian Mao, and the Architect of the Capitol, Mr. Ayers.

Our budget hearings are critical so that we can understand the challenges that your agencies face. The bipartisan budget deal last year provided a much needed boost in discretionary funding, but next year, the caps are flat, so we need input from the agencies to help us to figure out how to make the best tough funding decisions in this environment.

We also need to get a sense of where we are headed in the future as we consider the consequences of a continued budget cap scenario, caps that are now at a level that I worry are short-sighted and irresponsible given the needs across the Federal Government.

Of course, our first panel is with Mr. Mao with the Library of Congress, an institution that I hold in high esteem, as the steward of our cultural and intellectual heritage. This can be a tough job in an era of constant change and evolving technologies, but I still believe in libraries. I still believe in books. I think there is a need for a physical space to be the repository of American knowledge.

I fully support the Library's efforts to modernize and incorporate the new with the old, and I am glad to see new technologies helped to make resources more readily available to the public. We are always going to need books and we are always going to need libraries.

I want to give a special thanks to the Library for hosting the Daniel K. Inouye Distinguished Lecture Series, which I was able to attend the first one. The inaugural lecture was captivating and really reflected the spirit of Senator Inouye who remains unparalleled in his dedication to public service.

Now, let me turn briefly to the AOC which preserves a unique part of our history here in the Capitol. Mr. Ayers, I noticed that the Statue of Freedom has emerged from the scaffolding. I have it written down here that "It is an exciting development." I would call it an encouraging development. I am looking forward to seeing the finished look of the Capitol and hearing about the progress, especially as we anticipate inauguration.

I do want to talk to you about the AOC's responsibility in overseeing the Senate's contract for food services, and I would like to acknowledge and welcome the Restaurant Associates' employees who are here today at the hearing. They have handwritten letters that they have given to me about their experiences, and with your permission, Chairman Capito, I would like to submit those into the record.

Senator CAPITO. Without objection.

[The information follows:]

LETTER SUBMITTED BY DAVID CUEVAS

DEAR SENATOR SCHATZ: My name is David Cuevas. I work as a cook at the Capitol Visitors Center. We did not receive any raises. We only received our review of 50¢, even though other Compass workers who are cooks and cashiers at the Senate did receive wage increases.

We struggle to survive on low pay. As a cook at the Capitol Visitors Center I only make \$13.30 an hour, and now with my review \$13.80 an hour. Human Resources representative told me that it is fair what I make, but at the Senate cooks make \$17.45 an hour.

I feel like our opinions don't matter. That is why I am writing to you for your help because every worker deserves an equal voice and equal pay. That is also why we intend to keep fighting until every worker wins a living wage and the right to form a union without fear of retaliation.

Thank you Senator Schatz,

DAVID CUEVAS,
Cook, Capitol Visitors Center.

LETTER SUBMITTED BY CARLOS ALBERTO GARCIA

DEAR SENATOR SCHATZ: My name is Alberto Garcia and I'm a cook at the U.S. Senate Cafeteria inside the Dirksen building. As you are aware, we have been fighting for a \$15 minimum wage and the opportunity to form a union without the fear of retaliation.

Recently, our employer Compass Group, renegotiated its contract for food service with the Architect of the Capitol. After nine strikes over the past year, we thought we had finally won a victory in our struggle. The Architect of the Capitol announced that raises would be given to all workers to make them more similar to the workers at the House of Representatives who earn higher wages and have benefits and a union.

However, in order to avoid paying some of us a higher wage, our employers misclassified us into lower paying job categories in violation of the Service Contract Act. Although we have heard that these issues are being dealt with, it's now 3 months since the contract was set in place, and we have no updates on when we will receive the appropriate pay rate or any back pay associated with the misclassification.

I have big dreams. I'm currently enrolled in school and hope to someday become a head chef. I would like to attend culinary school, but my current pay is not enough to make my dream a reality.

If I were to get the raise to \$17.45 that has been promised to workers like me who cook meals for visitors, Senators, and staff at the Senate Cafeteria, my life would change significantly.

I could help support my mother more, finish my current studies and begin my training to become a chef. But that dream is currently on hold. Winning this partial victory is important, but we are not going to stop until workers at the U.S. Capitol earn at least \$15 an hour and are allowed a voice on the job to negotiate for better benefits and working conditions. I have no doubt that if we had been part of the negotiations for this contract, some of the issues that have surfaced since then would not be happening now.

Thank you Senator Schatz,

CARLOS ALBERTO GARCIA,
Cook, Dirksen Senate Cafeteria.

LETTER SUBMITTED BY BERTRAND OLOTARA

DEAR SENATOR SCHATZ: I am Bertrand Olotara. I was hired as a cook at the Senate by Restaurant Associates on January 16, 2014 until December 18, 2015, when Restaurant Associates renewed its contract. They then changed my classification to a food service worker, and I keep fighting until they reclassify my title. I only make \$14.21 an hour as a food service worker instead of \$17.45 as a cook. I am a single father of five and I work two jobs 7 days and 70 hours a week. As a result, I don't have enough time to spend with my family going to the library, church, attending school events, etc., and my American dream is a nightmare right now.

However, with my reclassification I will leave my second job and have a normal life as a father who will work 40 hours a week and take my children to music classes and basketball practices. I don't want to rely on food stamps to feed my children.

I will appreciate dear Senator Schatz if you can ask Restaurant Associates to treat workers the same way because a cook at the Capitol Visitors Center makes less money than a cook at the Senate. Furthermore, having a union will protect workers against any wrongdoing from Restaurant Associates.

Best regards,

BERTRAND OLOTARA,
Senate Food Service Worker.

Senator SCHATZ. Thank you. I share the deep concerns that many of my colleagues have expressed, that working in the restaurants has been a very tough experience. In the United States Capitol, we have a special obligation to take care of the people who take care of us. They have not been treated fairly, both as an ethical matter, and in my opinion, as a legal matter, and I look forward to continuing this conversation as we go through this hearing.

Thank you, Chairman Capito.

Senator CAPITO. Thank you, Senator. With that, I welcome Mr. Mao to give his opening remarks. I think they will be 5 minutes in length. Your full statement will be printed in full in the hearing record. Welcome.

SUMMARY STATEMENT OF DAVID MAO

Mr. MAO. Thank you, Chairman Capito, Ranking Member Schatz, good afternoon. Thank you for the opportunity to testify in support of the Library of Congress' mission and its fiscal year 2017 budget request.

We are very grateful for the continued support that you and the Congress give to the Library, and in particular, I express extreme gratitude for your help last year with our urgent physical collection management needs.

For more than 215 years, the Congress has sustained its Library. With the largest collection of the world's recorded knowledge ever

assembled by one institution, the Library now holds over 162 million items, including the world's largest collection of legal materials, films, sound recordings, and maps.

Library staff have provided research and analysis to the Congress for more than 100 years through the Congressional Research Service, and for almost 200 years through the Law Library. The Library has supported and protected U.S. creativity and innovation since it became the national home of the copyright function in 1870.

The Congress remains the Library's primary focus. Our highest priority as an institution is to support the legislative, oversight and representational work for the Congress.

We are, however, at a time of significant change and opportunity as we prepare for new leadership for the first time in almost 3 decades. Our focus is on positioning the Library to serve the Congress and the American people in a future where change, driven in particular by technological advancement, occurs at an accelerating pace. The Library must adapt to this rapidly changing environment.

Over the last year, we reconfigured the Library's organizational structure to meet increasing demands. We also released a new strategic plan for 2016 through 2020 that provides a path forward, and is deliberately flexible in order to accommodate future needs as they evolve.

As part of the realignment and to support the new organizational structure, the Library made critical leadership appointments of a chief information officer and a chief operating officer to unify the Library's information technology and operational infrastructure functions.

Additionally, we appointed a director of the newly created National and International Outreach service unit, to head consolidated outreach activities, including collaborative efforts with other institutions.

For fiscal year 2017, we asked for \$667 million in appropriations, which represents an 11 percent increase over fiscal year 2016. Of this, 3.5 percent covers mandatory pay and price level increases. Moreover, \$13 million of the fiscal year 2017 request will non-recur in fiscal year 2018.

The balance of the increase represents critical investments in future areas that will immediately advance the Library's capabilities across its diverse mission areas.

As the important work of the Library continues, demand for services grows. We, therefore, seek to achieve much needed transitional improvements, particularly in response to Government Accountability Office findings of the Library's management of information technology.

We are dedicated to strengthening our information technology and physical infrastructure core that will significantly leverage the Library's capabilities and capacities.

We are committed also to addressing urgent human capital needs, such as analytic capacity in the Congressional Research Service.

While complete transition cannot be accomplished in 1 year, we must first address the most urgent shortfalls in key infrastructure

areas, information technology, the care of and access to our digital and physical collections, and developing and maintaining the unique human skills needed to fulfill the Library's mission.

Through several years of declining budgets, we compromised and took risks in these areas, often making difficult choices to cover mandatory costs that ensured current operations while sacrificing investment for the future.

Absorbing mandatory pay and price level increases over those years further eroded the Library's buying power. Continually funding near-term operational demands at the expense of long-term investments has allowed some mission critical areas, such as the data center and the primary computing facility, to reach the point where they present serious risks.

Much has changed since the Library put key infrastructure into place. Technology has advanced, Congressional and public demands have changed, and some infrastructure has become outdated.

The Library's budget request, which represents transition and transformation, aims to position the Library to move forward. To avoid mortgaging the future by continuing to support infrastructure that cannot handle current and future demands, we must make long-term investments that move us forward in the most economical way.

Our future service to the Congress and the American people depends on having a modernized infrastructure, and one that is appropriate, efficient, and lasting.

Madame Chairman, Ranking Member Schatz, the Library is both America's first Federal cultural institution and part of the innovative infrastructure of America. I thank you again for supporting the Library of Congress and for your consideration of our fiscal year 2017 request.

[The statements follow:]

PREPARED STATEMENT OF DAVID S. MAO

Madame Chairman, Ranking Member Schatz, and members of the subcommittee:

Thank you for the opportunity to provide testimony in support of the Library of Congress mission and its fiscal 2017 budget request.

The mission of the Library of Congress is to provide the Congress and the American people with a rich, diverse, and enduring source of knowledge that supports the Congress in fulfilling its constitutional duties and empowers America in its intellectual, creative, and civic endeavors.

For more than 215 years the Congress has sustained its library. With the largest collection of the world's recorded knowledge ever assembled by one institution, the Library holds over 162 million items including the world's largest collections of legal materials, films, sound recordings, and maps. The Library's staff have provided research and analysis to the Congress for more than 100 years through the Congressional Research Service (CRS) and for almost 200 years through the Law Library; and the Library has supported and protected U.S. creativity and innovation since it became the national home of the copyright function in 1870. Today, "The Library embodies key ideals on which this nation was founded: the right of a free people to have unfettered access to knowledge, the necessity for a productive people to have material incentives for innovation, and the need to preserve the record of our citizens' creativity."

I come before you today during a time of significant change and opportunity for the Library. As we prepare for new leadership for the first time in almost 29 years, our focus is on positioning the Library to serve the Congress and the American people in a future where change, driven in particular by technological advancement, occurs at an accelerating pace. Our fiscal 2017 budget request represents the beginning of a transformation and transition process for the Library. Looking across the Library's diverse mission areas, successful transformation to an infrastructure that

can accommodate this fast-moving environment will require increased capacity and capability in computing power, information technology, and unique human skills.

Storage space for our collections continues to be a high priority in this transition period. Beginning construction on a fifth preservation and storage module at Ft. Meade is a tremendous step forward, and the Library appreciates congressional support of the project. The Ft. Meade modules reduce deterioration of the Library's collections, provide for better access, and help alleviate an urgent situation with the management of physical materials. We are grateful for congressional funding and support in fiscal 2016 to start the design of modules 6 and 7, and for the support we received for our urgent physical collections management needs. Committed to our overall mission of distributing knowledge and information and preserving American heritage and culture, we take very seriously our duty as stewards of these precious resources and as servants of current and future generations.

Over the last year we implemented a major realignment that reconfigured the Library's organizational structure to meet accelerating demands. The Library's streamlined organization will set the conditions for providing comprehensive information technology planning and execution; centralizing management of key support functions to serve the Library's mission areas; consolidating management of digital and analog collections; and improving the support structure for staff. To enhance the Library's outreach efforts, we brought together under one organization the outward-facing activities and programs that were previously scattered throughout several Library units. They are the foundation for the new National and International Outreach service unit.

As part of the realignment and to support the new organizational structure, the Library made critical leadership appointments of a chief information officer and a chief operating officer to centralize oversight of and make more efficient the Library's information technology and operational infrastructure functions. Additionally, we appointed a director of the National and International Outreach service unit to spearhead oversight of the consolidated outreach activities, including collaborative efforts with other institutions.

To further prepare for transformation, the Library developed a Strategic Plan for 2016–2020. Released in October 2015, the plan sets forth primary strategies that are deliberately flexible in order to accommodate future needs as they evolve. Our commitment to the following seven strategies will provide the basis for comprehensive planning and programming to ensure the Library's transition to being a much stronger service provider.

1. Service: Deliver authoritative, authentic and nonpartisan research, analysis and information, first and foremost, to the Congress, to the Federal Government, and to the American people.
2. Collections: Acquire, describe, preserve, secure and provide access to a universal collection of knowledge and the record of America's creativity.
3. Creativity: Work with the U.S. Copyright Office to develop modernized copyrights systems and practices, in accordance with copyright laws and public objectives.
4. Collaboration: Stimulate and support research, innovation, and life-long learning through direct outreach and through national and global collaborations.
5. Empowerment: Empower the workforce for maximum performance.
6. Technology: Deploy a dynamic, state-of-the-industry technology infrastructure that follows best practices and standards.
7. Organizational structure: Organize and manage the Library to facilitate change and adopt new methods to fulfill its mission.

As the important work of the Library continues, demand for services grows. We therefore are taking aggressive action in this budget request to achieve much-needed transitional improvements, particularly in response to Government Accountability Office findings on the Library's management of information technology, as well as findings from several reports by the Library's Office of the Inspector General. We are dedicated to strengthening our information technology and physical infrastructure core that will significantly leverage the Library's capabilities and capacities.

For fiscal 2017, we ask for \$719.260 million, a 12 percent increase over our 2016 budget. Of this, 3.24 percent covers mandatory pay and price level increases (\$23.332 million). Moreover, \$13.098 million of the fiscal 2017 request will non-recur in fiscal 2018. The balance of the increase represents critical investments in three focus areas that will immediately advance the Library's capabilities across its diverse mission areas. It is a significant request that represents the beginning of modernization, transition, and risk reduction.

While complete transition cannot be accomplished in 1 year, the process for positioning the Library to adapt effectively to accelerating demand and advancing technologies requires that we first address the most urgent shortfalls in key infrastructure areas. These areas primarily include information technology, the care of and access to our digital and physical collections, and developing and maintaining the unique human skills needed to fulfill the Library's mission. Through several years of declining budgets, we compromised and took risks in these areas, often making difficult choices to cover mandatory costs that ensured current operations while sacrificing investment for the future. Absorbing mandatory pay and price level increases over these years further eroded the Library's buying power. Continually funding near-term operational demands at the expense of long-term investment has allowed some mission-critical areas, such as the data center/primary computing facility, to reach the point where they present serious risks.

The Congress remains the Library's primary client. Accordingly, our highest priority as an institution is to provide all members and committees with authoritative, timely, and nonpartisan research and analysis, and information to support the legislative and oversight work of both houses of Congress.

CRS works constantly to position itself for the future by systematically anticipating congressional needs 3 years out. Meeting congressional needs in a multitude of areas, including those that cannot be anticipated, depends on CRS staff expertise. We request enhancements to analytic capacity in areas of high demand such as defense policy, and emerging issues such as technology policy. Because staffing in CRS has declined nearly 10 percent over 5 years of flat budgets, and senior experts' retirements continue steadily, support for these requests will help CRS maintain appropriate capabilities to offer effective responses to issues that become priorities on the congressional agenda. These are unique, not easily acquired, human skills required by CRS in order to process superior research products essential for decision-making.

While filling human capital needs in CRS and other targeted areas is a major focus, addressing significant long-term information technology issues also is of high importance for the entire Library. IT infrastructure is the foundation for all of the Library's mission areas: a central IT operation supports everything from congress.gov and crs.gov to the copyright online registration system and collections that embody America's heritage and culture. IT is the backbone for much of the services the Library provides; it runs the online catalog, operates the Braille and Audio Reading Download (BARD) application for the blind and physically handicapped on mobile devices, and enables the Library to put online rare documents and images that cannot be found anywhere else in the world. While the demand for computing power continues to increase, our current capacity is restricted and in dire need of modernization to ensure continued operations of essential services and to reduce risk.

Thus, a major focus of this budget is to modernize computing capability. We ask for the first year in a 3-year investment to begin building a hosting environment for the Library's primary computing facility (PCF) away from Capitol Hill at the shared legislative branch hosting site. The root of many of the Library's IT challenges is the insufficient computing capability and capacity of the Madison Building primary data center. The current center is an Uptime Institute Tier I facility that lacks power or cooling redundancy. Library customers rightfully demand that the system is always "on," but our infrastructure struggles to keep pace. In 2008, for the first time, the PCF was shut down during the annual fire and safety check due to the deteriorating capability of the Uninterrupted Power Source (UPS) to pick up the load once Madison Building power was turned off. In August 2011 the PCF was shut down twice: once due to the August 23 earthquake, and again due to Hurricane Irene. Again the UPS was not trusted to pick up the load during a power loss. Last summer, we experienced a serious hardware failure and outage of Library systems—including a costly 9-day outage of the copyright registration system—when the PCF was shut down during the Architect of the Capitol's annual fire and safety check. Annual shutdowns are required because the generators are 35 years beyond their service life and are unable to pick up the full data center power demand during the required electrical power shutdown to the building. Currently, the demands of the Library's mission make it the biggest power draw on Capitol Hill. The PCF infrastructure is near capacity and carries a high risk of unplanned shutdowns. Moreover, it is not a matter of if, but when there will be a major mechanical failure—exclusive of the risk of a natural disaster or terrorist attack. In our opinion, it is imperative that the PCF be modernized, and preferably as part of the House data center initiative.

We therefore strongly recommend modernization as well as locating our primary computing facility away from Capitol Hill. The risks of remaining in the current

aged and inadequate data center on Capitol Hill are significant. A modernized and remote PCF will greatly reduce risk, allow for double the capacity, and achieve Tier III capability, which Capitol Hill renovation alone will not. It is clear that additional capacity and modernization will greatly reduce the risk of shutdown under a multitude of circumstances.

The exposure of the Library's IT infrastructure to cybersecurity threats is another area of serious concern, and is one weakness identified by Government Accountability Office and Office of the Inspector General findings. The information and knowledge that the Library houses and distributes to customers in all mission areas is critical to the Nation and must be protected in order to reduce cyber-attack risks and ensure mission continuance. For these reasons, we also seek funding for IT security enhancements that will strengthen critical security protection of the Library's IT network and resources as cyber threats continue to grow exponentially.

The Library's pace of digital collecting surpasses current collection infrastructure capabilities and is another area of concern. For example, the Library's web archives are three times larger than they were in 2010, with the amount of harvested content increasing by an average of 32 percent each year during this period. The expansion rate of digital collections now rivals that of physical collections. We are currently at capacity and request funding for a digital collections management unit to collect and manage content for the Library's digital format collections. The unit will work closely with the Chief Information Officer to collect, preserve, and deliver digital collections. It will assume responsibility for key born-digital acquisitions programs and digital materials not supported elsewhere in the Library and will provide significantly leveraged capacity and capability needed to manage the explosion of content in this area.

The Integrated Library System (ILS) is a mission-critical enterprise Library system that integrates major operational functions through the use of a common bibliographic database. The ILS supports the acquisitions, cataloging, circulation, and loan of Library material and provides online public access to Library collection metadata. The Library's requirements have evolved substantially since the system was installed in 1999. Because the current system cannot accommodate all of our electronic resource-management needs, the Library must operate several smaller ILS systems. We request funding to examine the business needs not currently supported in the ILS in order to develop requirements for the next-generation system which will electronically manage the Library's collection and provide discovery and delivery of the Library's collections to users worldwide. This investment will enhance the Library's capability to access and deliver critical material across all mission areas. We seek this funding in order to plan responsibly for the replacement of a core system.

One of the seven strategies in the Library's strategic plan for 2016–2020 is support for the U.S. Copyright Office in its efforts to develop modernized copyright systems and practices. For example, one reason for the request to move the PCF away from the Washington, DC area is to ensure against another outage of the copyright registration system like the one experienced last summer. Well-developed and flexible information technology systems are critical to the administration of a modern Copyright Office. The Library's systems are supporting the Copyright Office's efforts to improve internal operations and better meet customer needs.

In support of the Copyright Office's modernization efforts, we request programmatic increases to address critical staffing needs, ongoing efforts to make historic records searchable, data planning and management, and essential upgrades to software and hardware. Seventy-two percent of the request would come from fee revenue and prior year unobligated funds.

Finally, the Law Library has urgent collections needs to strengthen current and future service to congressional and other clients. We seek funding for a 7-year project to complete classification of the Law Library's multi-national legal collection of current and historic legislative documents, as well as primary and secondary sources of American, foreign, and international law. The collection is not fully classified according to the Library's own classification schedule. The Law Library must depend for access on staff members with many years of experience and specialized knowledge of where the materials are located. Reclassification and re-shelving of approximately 367,000 volumes will provide better service to Members of Congress and the general public through faster retrieval of requested volumes.

Current and future access to some of the Law Library collections depends on the replacement of compact shelving in storage areas. Initially supplied by a company now defunct, the compact shelving was retrofitted 15 years ago with a hand-crank system, operated by bicycle chains. The retrofit solution is failing and in some instances staff cannot fit carts or ladders—or themselves—into aisles to retrieve or re-shelve books. The estimated lifespan of the compact shelving was estimated to be

25 years; the shelving is now 30 years old. The situation presents serious staff safety issues, makes some collection items inaccessible, and takes some storage space out of service.

To sum up, much has changed since the Library put key infrastructure into place in the 1990s and early 2000s. Technology has advanced, congressional and public demands have changed, and some infrastructure has become outdated. The Library's budget request, which represents transition and transformation, aims to position the Library for the future. We laid the groundwork with a realignment and new strategic plan for 2016–2020. To avoid mortgaging the future by continuing to support infrastructure that cannot handle current and future demands, we must make long-term investments that move us forward in the most economical way, and also bring in new expertise.

We are mindful that the Library is an integrated institution. The Law Library, for example, obtains materials through copyright deposit, depends on the Library's IT services, and works closely with Library Services staff. All units in the Library—the Congressional Research Service, the U.S. Copyright Office, the Law Library, Library Services, National and International Outreach—are increasingly interdependent in accomplishing their missions. We are collaborating in new and better ways to ensure we make the best use of our resources.

Our future service to the Congress and the American people depends on having a modernized infrastructure—an infrastructure that is good, lasting and right.

Madame Chairman, Ranking Member Schatz, and members of the subcommittee, the Library is both America's first Federal cultural institution and part of the innovative infrastructure of America. I thank you again for your support of the Library and for your consideration of our fiscal 2017 request.

PREPARED STATEMENT OF MARY B. MAZANEC, DIRECTOR, CONGRESSIONAL RESEARCH SERVICE

Madame Chairman, Ranking Member Schatz and members of the subcommittee,

I appreciate the opportunity to present the fiscal 2017 budget request for the Congressional Research Service (CRS). As you know, CRS has provided a unique service to all Members of Congress and committees for over a hundred years—delivering research and analysis without advocacy or agenda. In CRS, Congress has at its disposal dedicated specialized expertise and information resources ready to support any issue that may arise.

Our experts work hand-in-hand with your offices on a daily basis. Senators and staff know they can count on CRS to be confidential, objective, nonpartisan, authoritative, and timely. We align our work with the congressional agenda from the moment a new issue arises and continue to meet the needs of lawmakers throughout all stages of the legislative process. CRS analysts proactively examine the nature and extent of the full range of problems facing Congress, anticipate upcoming issues, identify and assess policy options, and assist with hearings on legislative proposals and on implementation of existing policies.

In the last fiscal year, the Service offered members and staff multifaceted, in-depth support across a wide spectrum of complex and diverse issues, with our experts providing more than 62,000 responses to requests for custom research and analysis. By the end of the fiscal year, CRS produced over 3,600 new or updated written products, summarized over 8,000 bills for the legislative digest, and hosted over 300 seminars, briefings, and other events for more than 7,400 congressional participants.

FISCAL 2017 BUDGET REQUEST

The CRS budget request for fiscal 2017 is \$114,408,000, with almost 90 percent devoted to pay and benefits for our staff. That is a 7 percent increase from fiscal 2016, the majority of which would serve simply to keep inflation and pay increases from eroding our base budget even further. This request will position CRS to face the challenges ahead and continue to deliver the extensive support we provide to Congress.

BUDGET CHALLENGES

Congress expects CRS to maintain the ability to offer comprehensive, timely and authoritative research and analysis on the full range of issues important to the American people. In addition, we are expected to employ the most up-to-date analytical techniques and methodologies, and to present our analysis in readily accessible and highly usable formats.

In this time of static budgets and reduced purchasing power, meeting congressional expectations is growing more challenging for the Service; particularly in a research setting characterized by increasingly complex issues, the explosion of data sources and the fast moving information environment in which the Congress operates. CRS must be positioned to nimbly navigate these challenges to support a twenty-first century Congress.

Since 2010, CRS's purchasing power has been reduced by thirteen percent. Cost containments and increased operational efficiencies have mitigated the effects of this shortfall on the ability of the Service to provide timely support to the Congress. However, existing CRS capabilities are stretched exceedingly thin to meet current congressional requests, while maintaining the high quality of our research and consultative services. CRS staff levels have decreased by nearly 10 percent over the past 5 years, and CRS experts are performing more work with fewer resources. For example, 17 active staff in the defense policy and budget areas now perform the work done by 25 people just a few years ago. In the current budget climate, the Service is unable to hire behind every analyst who retires. As a result, portfolios have been divided and reassigned to the remaining staff.

If CRS capabilities are not enhanced commensurate with the Congress's demand for our services over the next few years, we anticipate that:

- the ability of CRS to conduct in-depth research and analysis will be adversely impacted as existing staffing gaps intensify, with the Service facing challenges acquiring necessary new expertise, and retaining its invaluable cadre of experienced experts;
- the Service will not be able to effectively procure and utilize new technologies and leverage the increasingly vast amount of data that could provide critical insight for congressional decisionmaking;
- areas of consistently heavy congressional demand, including education, healthcare, defense, and appropriations will increasingly be impaired by staffing constraints, and timeliness for responses to requests and updating of research products may be adversely impacted due to staff workload; and
- the Service's ability to effectively perform all of the functions required by statute will diminish.

FISCAL 2017 PROGRAMMATIC INCREASE REQUEST

High workloads and coverage gaps risk jeopardizing CRS's ability to provide Congress with the expertise it depends on to carry out the Nation's business. To help ensure that CRS can continue to meet congressional expectations, the budget request includes a programmatic increase of \$3.106 million to fund a total of 22 FTEs to allow the Service to secure additional specialized technical skills and policy expertise necessary for research and analysis in support of the Congress.

This funding would allow CRS to add 12 FTEs to strengthen capacity in issue areas of high demand which are currently significantly understaffed. Many of the key analysts in areas such as defense, education, healthcare, appropriations, and budget are handling 2 to 4 times the average number of requests per analyst, per year.

The increased funding would also allow the Service to hire seven FTEs to fill emerging gaps in technology policy, data management and analysis, and data visualization—three areas identified in our strategic planning effort that would have a widespread, positive, and immediate impact on service to the Congress. Of the seven FTEs, the funding would provide for four analysts focused on technology policy—enabling CRS to better respond to questions around the use of emerging technology in areas like national security, e-finance, transportation, and biotechnology; all of these are areas of growing congressional interest, which we anticipate will spur an increasing number of requests for the Service.

The Service is receiving more requests to analyze “big data” sets that can help inform policy decisions. Of the seven FTEs, the funding would also provide two positions focused on data management and analysis and an additional position focused on data visualization—to enable us to deliver complex information in a more readily digestible format.

The budget increase would also allow the Service to make improvements to the *Constitution of the United States of America: Analysis and Interpretation* (popularly known as the Constitution Annotated or CONAN), the highly regarded and widely used comprehensive treatise on constitutional law that CRS maintains pursuant to statutory mandate. We recently brought in a prominent constitutional scholar to review CONAN and make recommendations on how to modernize and increase its accessibility and usability for Congress, constitutional scholars, and the public at large. The budget increase would support three legislative attorneys with expertise

in constitutional law to perform the complex legal research and analysis that is critical to the success of this modernization project.

Cognizant of the current budget environment, we have taken significant steps to manage our responsibilities within our current resources. We have restructured our recruitment strategy to bring in more entry-level analysts who can work on a wide variety of issues. And we have created new position types—such as our research assistants—bringing in highly talented entry-level staff to assist analysts with data collection and the production of research. Staff capacity is being grown using in-house, entry-level hiring programs and leveraging low-cost staffing strategies, such as volunteer interns, phased retirements, and temporary appointments. Contract staff are used where appropriate.

However, there is a practical limit to the capacity and flexibility of CRS staff to absorb additional subject-area assignments while maintaining the knowledge, experience, and expertise necessary to offer timely, in-depth, authoritative research and analysis on the full range of issues important to the American people. While some issues can be anticipated and properly planned for, others appear rapidly and need to be answered immediately. To be able to meet that demand, the Service is compelled to maintain senior staff capable of addressing detailed questions that arise in a wide range of specialties.

LEGISLATIVE SUPPORT FOR CONGRESS

To better illustrate the range of specialties we must maintain on staff, I'd like to provide the Committee a sample of the breadth and depth of services CRS provided last year.

On the domestic front, the budget, debt, and deficit continued to drive significant demand for research and analysis. Our experts supported the debate over the fiscal 2015 and fiscal 2016 budgets by analyzing budget trends and the impact of recent legislation. Congress called on CRS to examine a number of specific issues such as the impact of the Budget Control Act on Federal spending, and issues associated with reaching the debt limit.

Immigration and healthcare remained very active as well. On immigration, CRS wrote extensively on legal and policy issues raised by the executive branch's actions, "sanctuary" jurisdictions, and related national security concerns. With respect to the Affordable Care Act, CRS provided broad and deep coverage on the law's implementation and potential legislative alternatives. CRS health experts also provided research and analysis pertaining to emerging health reform legislation and worked extensively on issues relating to the passage of the Medicare Access and CHIP Reauthorization Act.

CRS supported several other major congressional initiatives. Analysts and attorneys worked closely with both the Senate and House on the Elementary and Secondary Education Act (ESEA). Our finance and trade staff worked extensively on issues around the reauthorization of the Export-Import Bank. We also provided in-depth support for congressional action on transportation and energy legislation, and defense department reform efforts.

When Congress sought to develop a compendium of tax expenditures, CRS analysts provided a comprehensive assessment of each and every one. Analysts also reviewed the potential policy and economic consequences of the various tax reform initiatives proposed by members, the White House, and outside think tanks, and supported the deliberations over extending expiring tax provisions.

The fiscal year also saw several major social issues capture congressional interest. The Supreme Court decision in *Obergefell v. Hodges*, legalizing same-sex marriages, raised a host of questions for CRS attorneys. CRS provided analytical support and consultative service to the Congress as it held hearings, introduced legislation, and debated issues pertaining to fetal tissue donation and funding for reproductive health services. Mass shootings and questions about race relations and the proper use of force by law enforcement required impartial CRS policy and legal analysis.

In the international arena, ongoing violent conflicts abroad, political upheavals, power disputes, nuclear proliferation pressures, and major refugee and humanitarian dilemmas captured significant congressional attention in the past fiscal year. CRS experts were readily on hand to help with these critical issues.

CRS assisted the Congress by analyzing the international struggle against the Islamic State and other terrorist groups, not only in Syria and Iraq, but also in Libya, Yemen, Egypt, and various sub-Saharan African countries. The Congress also sought CRS assistance as lawmakers considered presidential authority to engage in military operations against the Islamic State and debated options for new or revised congressional authorization for the use of military force.

The Iran nuclear deal prompted numerous requests for legal and policy analyses by CRS on what the agreement required of Iran, the United States, and the other parties; the current status of Iran's nuclear program; and the role of the International Atomic Energy Agency (IAEA). Experts assisted with issues such as how the deal might alter Iran's regional policies, including aid to terror groups, and how key U.S. partners in the region, including Israel and Saudi Arabia, viewed the agreement. CRS also examined the sanctions provisions of the agreement, including which sanctions were designated to be lifted, which ones would remain, which sanctions would be brought back into effect if warranted, and the nature of the authority to waive or lift sanctions on Iran.

CRS foreign affairs and legal experts also supported a number of global trade issues, including the reauthorization of Trade Promotion Authority (TPA), negotiations on the Trans-Pacific Partnership (TPP), the U.S.-EU Transatlantic Trade and Investment Partnership (T-TIP), U.S. trade relations with China, and economic sanctions against Russia.

Finally, CRS provided extensive support for Senate operations. Our analysts and attorneys provided in-depth research, empirical analysis, and procedural expertise on executive and judicial nominations as the Senate exercised its duty to advise and consent. And our legislative procedure experts supported Senate deliberations not only through reports and tailored work but also through an extensive seminar program on all aspects of the legislative process.

Many of these issues will continue to be of interest to Congress this session. We have completed our annual legislative planning process, identifying over 140 issues likely to be on the congressional agenda. To ensure we are prepared to meet congressional needs, we have formed multidisciplinary teams which are preparing and updating reports and organizing our product line and web resources around those issues.

This anticipatory legislative planning process spanned several months and resulted in CRS being well placed to provide products and services to the Congress this session. However, even the best planning cannot anticipate all issues that may suddenly confront the Congress. CRS has the analytical flexibility to quickly address emerging issues. For example, the terrorist attack on Paris last year turned attention overnight to a number of international and domestic security issues. As events unfolded, we quickly updated our reports on the Islamic State, terrorism, immigration, and domestic security and highlighted that body of work on the home page of our Web site. In addition to products focused on those issues, our experts conducted in-person briefings and prepared tailored analyses of questions raised by the attack. CRS staff stand ready to respond to emerging issues like the Paris event at all times.

CONGRESSIONAL SATISFACTION

Given our close working relationship with Congress, CRS has been tasked with leading a Library-wide initiative to survey Members of Congress and their staffs, to ensure that the Library's products and services are meeting expectations. The Library recently entered into a contract with Gallup, which has an 80-year history of conducting cutting-edge survey research. Gallup will conduct member and staff surveys and interviews to determine their fundamental and optimal requirements for services and support from the Library and especially CRS and what, if any, actions are necessary to provide those services. We expect their final report later this year.

STRATEGIC PLANNING

Although CRS's statutory mission remains the same, Congress and the environment in which it operates are rapidly evolving. To ensure that the Service is well positioned to meet the information and research needs of a twenty-first century Congress, we launched a comprehensive strategic planning effort that identified priorities, goals, and objectives that will enable us to move effectively into CRS's second century. One of the first tasks identified is a review of our operations, beginning with an assessment of how we can better manage and utilize the latest technologies. This CRS plan is compatible with the Library's overall strategic plan. CRS has kept its congressional oversight committees informed of the goals as well as progress on the plan. This 5-year strategic plan will be implemented beginning in 2016, through 2020.

NEW AUTHORING AND PUBLISHING TOOL

The Service's information technology infrastructure shapes our daily operations, the research we are able to conduct, and how we are able to deliver our products and services to the Congress. CRS made significant progress in fiscal 2015 on a

multi-year effort to identify and assess options for updating our existing system for authoring and publishing written products distributed directly to the Congress. A special working group composed of a cross-section of staff from across the Service continues to develop a detailed set of requirements and technology options for the future of the authoring and publishing system.

PRODUCT ENHANCEMENTS

In order to meet evolving congressional needs, new “In Focus” and “CRS Testimony” products were developed for release on CRS.gov in fiscal 2015. In Focus products are concise, two-sided, one-page summaries of key issues on a given topic. They are available in printable PDF format as well as standard HTML pages. CRS produced approximately 250 In Focus products during the fiscal year. In addition, a template was developed to provide congressional staff with easy access to congressional testimony submitted by CRS experts. Both In Focus and CRS Testimony products can be located on the CRS Web site by key word or author search, similar to CRS Reports.

To help meet the growing congressional demand for visual information, CRS launched a pilot study of a new product line devoted to stand-alone, high-quality “infographics.” These products present complex information in a condensed visual form that is easily understood. Multiple infographics have been posted on CRS.gov, covering a range of diverse topics such as regulatory burdens on small banks, economic effects of the fiscal 2014 Government shutdown, and military casualty statistics. Additional infographics will be developed as we determine the effectiveness and usability of this product type. CRS also collaborated in the Library-wide project to develop a geospatial hosting environment which will allow the creation of interactive maps for congressional use.

CRS continues to explore additional product formats for presenting key information and analysis in ways that meet congressional needs for authoritativeness, accuracy, and brevity. As part of this effort the Service is developing one-page summaries of CRS reports that will be published as stand-alone products. The Service is also developing new Issue Pages for CRS.gov that will provide a one-place stop for products on specific issues, like defense and healthcare. The Issue Pages are intended to align the organization of CRS products to the portfolio structure of congressional offices and make them more easily accessible for congressional staff.

CONGRESS.GOV ENHANCEMENT

Working in collaboration with the Senate, House, GPO, and the broader Library, CRS significantly contributed to the continuing development of Congress.gov as the official source for Federal legislative information that will fully meet congressional needs. CRS provided data analysis, subject matter expertise, consultation, system testing, user testing, coordination of data partner relationships, and support for congressional users and data partners. CRS also continues to support the use of the Congress-only LIS until equivalent capability is fully developed for the new Congress.gov.

CONCLUSION

Congress relies on CRS to marshal interdisciplinary resources, apply critical thinking, and create innovative frameworks to help legislators evaluate and develop sound legislative options and make decisions that will guide and shape present and future national policy. The entire CRS staff is dedicated to that mission and proud of our unique role as extended congressional staff. However, to continue to provide confidential, objective, nonpartisan, authoritative and timely research and analysis, CRS needs to be able to continue to build and enhance its research capacity with staff capable of meeting fully the needs of Congress as you contend with increasingly complex issues.

I appreciate your continued support and look forward to working with you to ensure that CRS continues to robustly fulfill its mission to you and the entire Congress.

PREPARED STATEMENT OF MARIA A. PALLANTE, UNITED STATES REGISTER OF
COPYRIGHTS AND DIRECTOR OF THE UNITED STATES COPYRIGHT OFFICE

Madame Chairman Capito, Ranking Member Schatz and members of the subcommittee:

Thank you for the opportunity to present written testimony in support of the fiscal 2017 budget request of the United States Copyright Office. The Copyright Of-

Office's core operations are funded through two sources: fees paid by authors, corporate entities, and other customers; and annual appropriated dollars that reflect the value of the Copyright Office's services to both the public and the economy. Historically, fees have made up the majority of this funding, with a range of 58 percent to 67 percent over the past 5 years.

MISSION, POLICY WORK AND STRATEGIC PLANS

The Copyright Office has a critical mission within the United States Government. It administers the Nation's copyright laws for the advancement of the public good; offers services and support to authors and users of creative works; and provides expert, impartial assistance to Congress, the courts, and executive branch agencies on questions of law and policy, including in the context of interagency discussions or intergovernmental negotiations.

In the past few years alone, the Copyright Office has undertaken a tireless schedule of studies and public meetings regarding areas of both copyright law and copyright administration, all geared towards updating, clarifying and improving the national copyright system. As directed by Congress, some of these reports contain legislative recommendations: for example, in publishing *Copyright Small Claims*, the Copyright Office analyzes and advises on the benefits of creating a small claims mechanism outside of Federal court. Other efforts reflect significant updates to the administrative practices that implement the Copyright Act: for example, in publishing the *Compendium of U.S. Copyright Office Practices, Third Edition*, the Copyright Office completed the first comprehensive revision of the Office's administrative manual for copyright registration and recordation in decades.

The Copyright Office serves a wide diversity of customers worth trillions of dollars to the U.S. economy—from video game developers to mobile device manufacturers, from movie studios to Internet streaming companies, from music creators to online music services, from educators to libraries. The goal today is ensuring that the Office is positioned to meet the current and future needs of these essential stakeholders.

Not surprisingly, modernization goals are connected to the evolving and dynamic role of technology in the copyright marketplace. Today, it is commonplace for musicians to record songs on a smartphone or tablet, capturing in real time all the data needed to satisfy copyright registration requirements. By the same token, a digital music service trying to license that song and millions of others should be able to connect its servers directly to the Copyright Office via an API and search our data completely. Photographers, newspapers and software developers, among others, all need targeted attention to ensure services are optimal and regulations are appropriate. To accomplish these goals, we must shift the approach of the past entirely, and provide a flexible platform that others can build upon for the effortless protection and licensing of copyrighted works, and allow customers to complete transactions with the Copyright Office in real time, whether to protect their legal rights or to access or share business data.

To this end, and as further discussed below, the Copyright Office released two key documents in recent months that reflect our nuanced thinking and deliberations: (1) a 5-year strategic plan on December 1, 2015, entitled *Positioning the U.S. Copyright Office for the Future: 2016–2020*¹ and (2) a 5-year IT plan on February 29, 2016, entitled *Provisional Information Technology Modernization Plan*,² which provides a basis for fiscal year 2017 and 2018 activities.

Together these plans set a path by which to recalibrate almost all of the Copyright Office's services, from how it registers copyright interests in all kinds of creative works, to how it records and shares critical copyright data. The plans map to the strategic plan of the Library of Congress, which states in relevant part that it will “[w]ork with the U.S. Copyright Office to develop modernized copyrights systems and practices, in accordance with copyright laws and public objectives.” The Copyright Office and Library are also well positioned now to discuss relative points of alignment and relative responsibilities for information technology services.

In general, the Copyright Office IT plan recommends a clean slate approach, in which the Copyright Office is responsible for building new mission-critical applications within a dedicated enterprise architecture, and retiring rather than migrating legacy systems. The IT plan leverages flexible cloud technologies, while minimizing the need for an unwieldy and capital-intensive data center. This approach will allow the Office to remain nimble, and adapt to the ever-evolving needs of the copyright marketplace. It positions the Office to develop and link a number of IT programs

¹ <http://copyright.gov/reports/strategic-plan/USCO-strategic.pdf>.

² See www.copyright.gov/reports/itplan/.

and data needs that are best suited to its various functions, *i.e.*, developing separate business models for copyright registration and copyright recordation, and integrating the respective data sets as appropriate.

At the House Appropriations Committee's request,³ the Copyright Office has recently posed several questions regarding funding and implementation to the public.⁴

FISCAL YEAR 2017 APPROPRIATIONS REQUEST

Turning to our fiscal year 2017 appropriations request, the Copyright Office has three line items, as follows:

1. Copyright Basic budget, which funds most Copyright Office operations—\$66.870 million.
2. Copyright Licensing Division, which is a fiscal operation that disperses royalty income after statutory distribution proceedings and is funded by fees from private parties—\$ 5.531 million.
3. Copyright Royalty Judges, who report to the Librarian but are included by the Library under the Register's budget for administrative convenience—\$ 1.625 million.

We have provided budget justifications for all of the above items through the agency appropriations process,⁵ however, the first item is the heart of Copyright Office operations and the focus of my testimony today.

In fiscal year 2017, for Copyright Basic, the Copyright Office has requested (1) authority to spend \$33.619 million of offsetting collections, *i.e.*, fees collected from customers for services during that fiscal year; (2) authority to utilize \$6.147 million from the Office's reserve account, *i.e.*, unobligated fees collected during prior fiscal year(s); and (3) \$27.104 million in taxpayer support.

Because this request was prepared prior to the completion of the Provisional IT Plan, it does not assume the elements of a future technology state that are discussed therein. Rather, much of the fiscal year 2017 request is directed towards maintaining the current state of operation for the Copyright Office and replenishing depleted staff to ensure we have sufficient personnel to meet our current responsibilities under the Copyright Act. The request prioritizes an increase in FTEs, many of which would be dedicated to improving existing services, for example, technicians to speed the production of certified copies of copyright deposits and other materials. (Some would be devoted to transitional assignments involving planning activities.)

The Office's fiscal year 2017 request represents an increase in the basic budget of \$14.967 million over fiscal year 2016. The great majority of the request is \$13.634 million in programmatic increases, \$9.766 million, would be covered by fees collected in fiscal year 2017 or prior fiscal years, should the Committee authorize increased spending authority. As explained in the budget justification,⁶ we have aligned the request for increased spending authority with those program changes that support copyright owners paying fees into the copyright system, *e.g.*, increased staffing in our copyright registration and recordation groups. In addition to the increase in spending authority, the 2017 request includes \$5.201 million in taxpayer support. We have aligned the latter request to program changes that serve the general public or businesses taking advantage of free public data, such as increased staffing of the

³In the House Report accompanying the fiscal year 2016 appropriations bill, the Committee stated:

The Committee fully understands the importance of the Copyright Office as it relates to creativity and commercial artistic activity not only within the United States but also on a world-wide basis. In order to serve the copyright owners and the copyright community in the 21st century, a robust modern information technology (IT) operation will be necessary. . . . [T]he Committee directs the Register of Copyrights to report, to the Committee on Appropriation and relevant Authorizing Committees of the House on a detailed plan on necessary IT upgrades, with a cost estimate, that are required for a 21st century copyright organization. In addition to the cost estimate, the Register shall include recommendations on a funding strategy and a timeframe for completion of a new IT system that is necessary to better serve the public in the digital age. The Register should seek public comments to help inform the Copyright Office with the funding strategy and implementation timeline.

H. Rep. No. 114–110 (2015).

⁴See <http://copyright.gov/policy/itupgrade/index.html>.

⁵Library of Congress, Fiscal 2017 Budget Justification 109, available at <https://www.loc.gov/portals/static/about/reports-and-budgets/documents/budgets/fy2017.pdf>.

⁶Library of Congress, Fiscal 2017 Budget Justification at 119.

legal and policy departments and public information office, and to account for mandatory pay and price level changes.

The Copyright Office greatly appreciates the Committee's ongoing interest in, and support of, the national copyright system. At your direction, we stand ready to further discuss and report on any and all matters outlined above.

DATA CENTER RELOCATION

Senator CAPITO. Thank you. I think I will begin the questioning. I want to talk about the increase in your budget request for the data center relocation. My understanding is that it is in three phases, and you are asking for an additional \$24.6 this year of a 3 year investment to migrate the Library's primary computing facility to an alternate location.

I understand that House Information Resources currently located at Ford plans to move theirs as well to a new location. While there may be merit in the decision to move the data centers away from Capitol Hill, I am not sure I think the House should dictate other legislative branch agencies' specific courses of action.

So, would the Library have reached the same decision to move its data center to this new location without specific direction from the House, and why is it necessary to relocate the data center at this particular time?

Mr. MAO. To answer your second question first, we need to relocate the Madison Data Center because we are in a building that is 30 some years old and it does not have the capacity to serve not only our current needs but also our future needs.

As we continue to grow, there is not the capability to ensure our redundancy, both in the power and the cooling in the data center that will ensure that we can continue to serve Congress and serve our clients. So, we need to move out of the data center.

The first question you asked was whether we would have made an independent decision to move to the House location, the Legislative Branch Data Center. We relied on the great work that was conducted by the House in the studies they conducted in terms of options that were available, and we did not want to recreate the wheel. We took a look at their studies and we found they were very credible and very, very good at helping us to short circuit the work, if you will, on what we needed to do in terms of looking at options for us outside of the Madison Building.

Senator CAPITO. Well, I know in the new location that the Library will be assuming lease costs of \$7.1 million a year, which you currently do not have being housed obviously in one of your own buildings. Is this built into the future budgets? That is a pretty hefty sum there.

Mr. MAO. Yes, it is. We have included that and are prepared to fund the leasing of the space going forward, and it is something that we might need to consider whether we were there or somewhere else. The critical question is what do we do to get out of the Madison Building because it does not serve the needs and the future needs of our data center.

Senator CAPITO. So, would you put this in the category that you spoke about in your opening statement where it is serving the immediate rather than trying to tend to the needs of the future, this is something you are going to have to do eventually?

Let's say the funds were not provided to begin phase one, is this something that you would reprioritize within your budget to begin phase one, or is it something you would have to move further back before you could proceed?

Mr. MAO. We certainly need to continue to think about moving the data center out of the Madison Building, whether it is this year, next year, or the year after that. We would prioritize certainly among all of our needs, but the bulk of phase one, we could not absorb that as part of our budget, and if we did not move out of the data center, then we would just continue to assume the current risk level that we have for staying in the Madison Data Center until we could move out of the Madison Building.

BUDGET REQUEST NON-RECURRING COSTS

Senator CAPITO. Let me ask you a quick question. In your opening statement, if I heard you correctly, you said \$13 million of this request was non-reoccurring?

Mr. MAO. Yes.

Senator CAPITO. What is that for?

Mr. MAO. So, there are one time costs for moving and setting up the facility in Southwest Virginia.

Senator CAPITO. So, this is associated with relocating the data center, but then next year, you are going to have to ask for different millions of dollars for a different task related to that?

Mr. MAO. Correct.

Senator CAPITO. It is not like the \$13 million is going to be going away.

Mr. MAO. Yes, that is correct.

PUBLIC ACCESS TO CRS REPORTS

Senator CAPITO. Okay. Let me ask you about the Congressional Research Service, and thank you for what the Library provides for us there. When I visited with Mary Mazanec one of the discussions that we had was making CRS reports public.

As you know, there is a bill that has been introduced to the Senate to put those CRS reports up for general viewing.

I understand there has been some debate on that because of cost, and then also the speech or debate clause. In my view, the cost issue, we are already doing a lot of this in and around with the GPO and others, putting things up online for viewing, I cannot imagine that the cost could be that prohibitive to add another portal for the Library of Congress CRS reports. I understand that the legislation sort of deals with the speech and debate clause in terms of making sure that those issues are cleared up.

Do you have an opinion on that? I mean to me, I just see this as something we are going to be doing in the future. I would like to see us get on with it.

Mr. MAO. It is certainly in the proposal that you are talking about, there is talk about having CRS information released through the Government Publishing Office, more specifically, FDsys, FDsys.gov, the Web site.

Certainly, from a technical point of view, that is one of the options that is possible. There are certain costs that would be associated with it, and I believe you may have referred to the Govern-

ment Publishing Office talking about those costs that they would need to get the system up and the back-end work that needed to be done.

One other thing to consider and something that should be of concern is what unintended consequences and results may happen with providing that information. We just want to make sure that whatever financial implications there may be they are considered as well by this committee.

Senator CAPITO. Thank you. Senator Schatz.

REPROGRAMMING REQUEST

Senator SCHATZ. Mr. Mao, at the end of the last fiscal year, we received a \$4.5 million reprogramming request, on the last day. Can you explain what happened?

Mr. MAO. Yes. So, we had some money that was left over, if you will, from contracts, the proposals for contracts, you have a proposal in but the costs actually came back much lower than what the original estimate—

Senator SCHATZ. I understand that part. Why was it the last day that we were asked to authorize the reprogramming?

Mr. MAO. So, we did not actually know the final amount until that very last day, or a day or two before, so then we could prepare the paperwork. I want to say first of all thank you very much for agreeing to allow us to reprogram.

Senator SCHATZ. I did not. I appreciate it and I understand the need, but I just want to drill down a little deeper here. I understand contract costs come in under. That is nothing to scold anybody about. It is hard for me to believe it would have been impossible to get those numbers back except within 4 hours left on the last business day of the last day of the fiscal year.

Can you assure me that will not happen going forward?

Mr. MAO. Yes. We have taken a hard look at our contracting process. As I mentioned in my opening statement, we have appointed a new Chief Operating Officer that overlooks the contracting portion of what we do at the Library of Congress, and he is keeping track and making sure that we do not fall into the same situation that we did last fiscal year, so that we can ensure if there would be a need for us to ask for permission for reprogramming, it would be well in advance and with plenty of time for consideration.

INFORMATION TECHNOLOGY INVESTMENTS

Senator SCHATZ. Okay. Thank you. We have talked about it a little bit already, the Library is asking for \$67 million of additional resources to go towards IT and cybersecurity, but given the budget caps, what do you do if you do not get this money? Do you have a work around? Do you just push things into the future? Are you going to internally reorganize? What happens if you do not get this money?

Mr. MAO. So, to address the security request, we do not have the ability to absorb that entire sum if we were not to have any increases.

That said, these proposals were recommended to us. As you may know, we had a GAO audit last year, and some of these proposals

in terms of cybersecurity were recommended as part of the non-public report that was issued. They are directly in response to that.

If we do not have the ability to implement, for example, two-factor authentication, or coordinating the IT security across the entire Library, we will continue to proceed with the security that we have. Of course, security certainly is a concern to us, and we want to make sure that we continue moving forward in that area. We will identify what risks there are if needed, and try to adjust them with whatever funds we can find.

COLLECTION OF DIGITAL MATERIAL

Senator SCHATZ. Okay. You have 90 seconds to answer this question.

Mr. MAO. Okay.

Senator SCHATZ. Well, I am going to take 20 of them, sorry. You know, in the digital world, how does the Library of Congress sort of move into the digital world, digitize that which ought to be digitized, but not end up being an archive of everything on the Internet? What is the long-term vision for digitization and how that integrates into the Library's basic mission?

The reason I think this is so important is I think whatever we do, the Library of Congress ends up being an example for the rest of the world in terms of setting a tone going into the future.

Mr. MAO. So, in terms of everything on the Internet, that is not what we are trying to do. What we are trying to do is make sure that we have smart collections, we have collection development policies, and we also have experts who are looking at all the material and making a determination of what should be added to our collection.

In terms of digitization, we certainly are proceeding down that path and making decisions on what materials, analog materials, should be digitized, but we are also talking about born digital materials, so things that are already—well, they started off in the digital format. Altogether, we are trying to work together to make sure that we, as you say, set the standard for the world, and make sure that we at, the same time, are collecting the right information going forward.

Senator SCHATZ. Are we most of the way towards having new best practices and a well articulated policy, or is part of the challenge that the Library itself and the librarian community is adjusting to the circumstances, and you are still trying to come up with policies?

Mr. MAO. It is a little bit of both. One of our proposals is to have a collection management division within the Library strictly focused on digital materials. We are working now in an analog world where we do some digital work but we want to stand up a division that will have their primary focus on all digital work.

Senator SCHATZ. Thank you.

FULL-TIME EQUIVALENTS

Senator CAPITO. I am going to ask an additional question, if that is okay with everybody. I want to get to the full-time equivalent question. I mentioned it in my opening remarks. You are asking for

99 additional FTEs—Library of Congress, 25, Copyright Office, 52, and Congressional Research Service, 22.

Books for the blind and physically handicapped, no additional. We will give them a little gold star over here.

What is the need for 99 additional FTEs? That is a pretty large increase. So, I would like to hear your justification for it. You do not have to dig down deep, just a general justification, and then maybe we can have subsequent questions.

Mr. MAO. Certainly. The request is for the funding for the 99. We have authorization. We are well below our authorized level. Over the last 5 to 7 years, as we have had flat funding and sequestration, we have had to basically absorb mandatory costs and mandatory pay price level increases.

We have had to make some decisions on the funding for FTEs. Overall, from 2010 through 2015, we are down over 400 FTEs. We have looked at our needs and targeted the specific areas where we have very critical needs on staffing, and those are represented in the 99.

Senator CAPITO. Let me ask you this, is it possible to absorb the additional work through a contract type of situation, where maybe it is a more temporary kind of position that needs to be filled rather than assuming all of this along with the cost, so that next year, you know, if you were to get another 99, you are going to have additional requests because of the obvious benefits and cost increases of having that many more people.

I mean, I am sure you do contracting. Is that an issue that you look at before you start asking for more people?

Mr. MAO. Yes. We have looked at all different ways to get the work done, including contracting, although generally speaking, contracting could end up being more expensive than FTEs in certain instances.

We have looked at a variety of opportunities, including having work divvied up differently. I mentioned in my opening statement that we had a major realignment last year. You may recall that this proposal, for example, of the digital division was included in last year's proposal, where we were actually asking for 22.

As part of the realignment, we looked at the workload and looked at who could help out with certain work, so you see this year, it is actually 11, because we have prioritized and looked at how we could shift some of that work around using our current resources.

SHIFTING RESOURCES

Senator CAPITO. I mean, I think on the face of it, too, sort of pivoting off of Senator Schatz's question, in terms of the digitization, there are fewer magazines, there are fewer newspapers—although it seems like there are more books than ever, I will say that, when you see people on a book tour.

You know, is that a general shift? I know you still need the resources in the traditional areas, but certainly some of those areas have got to be shrinking, just by virtue of the way people are communicating. Is that not the case?

Mr. MAO. That is not the case. I would be happy to provide you with the statistics. We continually add print materials to our collection at quite a clip every single day.
[The information follows:]

LIBRARY COLLECTIONS

Question. Are certain collection formats diminishing due to the digital age? For example, less and less magazines, newspapers, and general print are being produced. Could the Library shift its resources to collection formats that are growing more rapidly than other areas?

Answer. The reality is that print publishing is very healthy even though digital publishing has developed into a major industry itself. Thus, the Library must selectively acquire both analog and digital content in order to meet its mission to serve Congress and the Nation. When material is simultaneously available in both formats the Library generally acquires only one copy.

The Publishing Industry

The amount of print publishing has actually increased in recent years, a trend evidenced globally. For example, the following table shows the production of print books by traditional publishers in the United States from 2002 to 2013. It also shows e-book production from publishers in the United States, 2011–2014. (Provided by Bowker, the standard source of U.S. publishing information.)

Year	U.S. Printed Books from Traditional Publishers ¹	U.S. e-Books from Traditional Publishers
2002	215,138	.....
2003	240,098	.....
2004	275,793	.....
2005	251,903	.....
2006	274,416	.....
2007	284,370	.....
2008	289,729	.....
2009	302,410	.....
2010	308,628	.....
2011	292,037	155,979
2012	309,957	301,479
2013 ²	304,912	260,247
2014 .....	.....	255,341

¹ Does not include reprints, print-on-demand, self-published titles, etc.

² Projected; most recent full year data released.

So, there are huge numbers of both print titles and e-books being published, in many cases with the same content being available in multiple formats. These statistics are from the United States alone. The Library collects worldwide, and the actual publishing landscape is far bigger and varied than just in the United States.

Magazines and newspapers fall into the general category of serials, which also encompasses journals, annuals, newsletters and other types of periodicals. Ulrichsweb.com is a database containing information on all types of serials worldwide. A search of the database on March 28, 2016, for all active serials in all countries retrieved 365,174 records. There were 226,086 records for print serials and 115,811 records for online electronic serials, with many publications having separate records for both print and electronic. From this data, it appears that there are still many serials that are only available in print format.

Current Collecting at the Library

The Library has a mission to: Acquire, preserve, and provide access to a universal collection of knowledge and the record of America's creativity. Collections materials are selectively acquired not only to serve immediate needs, particularly those of Congress, but also to be preserved for future generations of use. The Library has been steadily increasing its digital collecting capacity and capability over the past two decades. Expanding the digital collecting program is an essential part of the institution's mission. Yet, the transformation of the Library of Congress into a library that is primarily digital is impacted by the state of the publishing marketplace (as described briefly above), Copyright regulations that need to be updated and limited acquisitions funding.

In this changing hybrid environment, the Library must collect, make available and preserve materials in both traditional and digital formats. For example, the following data show the number of new print book and serial titles, from all countries of publication, added to the Library's print collections over the past 5 years.

New Printed Book & Serial Titles Added to the Collections (all countries)					
Year	Fiscal Year 2011	Fiscal Year 2012	Fiscal Year 2013	Fiscal Year 2014	Fiscal Year 2015
No. of Titles	285,123	267,121	230,350	222,498	238,976

Concurrently, the pace of digital collecting at the Library has accelerated greatly. Examples include the following.

- Last year, the size of the Library's Web archives (at 763 terabytes of content) was more than triple what it had been in 2010. The amount of harvested content increased by an average of 32 percent each year during the 2010–2015 period.
- Electronic serials received through Copyright mandatory deposit now number 1,400+ titles, comprising over 2 million files, compared to the 79 titles and 91,000 files received as of the end of 2011.
- Over 4,200 e-Books were added to the collections through the CIP program in fiscal year 2015, compared to 67 in the previous year—a 6200+ percent increase.

During a period of constrained budgets the Library has been shifting resources in order to expand collection of digital content. However, the wealth of overall published creativity still available in analog form precludes a simple shift of additional resources to collect more available digital content. An overall increase in funding resources is necessary to support this mission.

Senator CAPITO. Okay.

Mr. MAO. It is both.

Senator CAPITO. It is growing in both areas?

Mr. MAO. Yes, exactly.

Senator CAPITO. Okay. Thank you. I think that is very good. I appreciate you being here, and that concludes the first panel. The hearing record will stay open for 7 days so that Senators may submit any statements and questions by close of business on Tuesday, March 22.

You are excused. Thank you very much. I will call up Mr. Stephen Ayers.

Mr. MAO. Thank you very much.

Senator CAPITO. I think we can begin. I would like to welcome the Honorable Stephen T. Ayers, Architect of the Capitol, and members of the senior leadership team. Christine Merdon, the Chief Operating Officer. Tom Carroll, the Chief Financial Officer. Mamie Bittner, director of Communications and Congressional Relations.

I understand that several of the superintendents responsible for the daily operation and maintenance of the buildings within the jurisdiction of the Architect of the Capitol also are here today. We thank you very much, along with many other AOC employees, and we thank them for their dedication and many years of service.

The total fiscal year 2017 budget request for the Architect is \$694.3 million, an increase of \$81.4, 13.3 percent. I realize with the deferred maintenance backlog of \$1.5 billion, you have had to make some tough decisions when building this budget request. However, it still represents a 13.3 percent increase.

Included within the increase is the funding to support an additional 71 full-time equivalents. The request for additional per-

sonnel is a theme across most of the legislative branch agencies today. You heard me talking with the Acting Librarian, and I will ask you as I have asked other agencies how can we afford to continue increasing the size of the agency when we do not have enough to cover the available current workforce, whose salaries and benefits go up every year, and to tackle all the necessary projects.

As the subcommittee has discussed with each of the witnesses here, it is highly probable that we will be faced with a flat budget for fiscal year 2017, so we have some very difficult decisions to make.

We realize the level of difficulties and expense in managing the maintenance of our aging infrastructure while preserving its historical value. We certainly do not want to see these historic buildings crumble down around us.

However, we may have to further delay some of the proposed work due to budget constraints. I would like to hear from you regarding the impact of delaying some of this work year after year in terms of the increased deterioration and future cost of repair.

Now, I would like to turn to my ranking member, Senator Schatz, for any opening remarks he would like to make.

Senator SCHATZ. I do not have any opening remarks.

Senator CAPITO. We will go right to Mr. Ayers, who will give a brief opening statement of 5 minutes, and your written testimony has been submitted to the committee, which will be printed in full in the hearing record. Welcome.

ARCHITECT OF THE CAPITOL

STATEMENT OF HON. STEPHEN T. AYERS, ARCHITECT OF THE CAPITOL

Mr. AYERS. Thank you, Chairman Capito, and Ranking Member Schatz. I appreciate the opportunity today to testify regarding our fiscal year 2017 budget request.

Two thousand sixteen promises to be a banner year for the Architect of the Capitol, as several important projects are scheduled for completion. Most visibly, before the January 2017 Presidential Inauguration, restoration work on the Capitol Dome and the Rotunda of the Capitol will be complete.

On the Dome, installation of the cupola windows is complete, and cast iron repairs through the mid and lower sections of the Dome are complete, and as Senator Schatz said in his opening remarks, the Statue of Freedom has emerged, causing some excitement.

Inside the Rotunda, coffers have been stripped of old paint and new painting and repair work are about to get underway.

Updating and improving our facilities through fiscal responsibility continues to be our most important priority.

In the Hart Senate Office building, for example, we were able to leverage roof and skylight replacement project efficiencies toward the solar power system installation and the safety analysis on the Calder Clouds.

Over the past 10 years, the installation of over \$90 million in energy savings and performance contracts have significantly aided in our ability to achieve a 30.9 percent reduction in our energy inten-

sity. This, of course, exceeds the target set by the 2007 Energy Independence and Security Act, and represents a major achievement for us that we are very, very proud of.

These projects are all success stories, but are also compelling examples of the need for a sustained and significant investment in our deteriorating infrastructure. Continuing to defer needs results in critical damage that compounds and will become more costly to repair in the future.

Safety and state of good repair upgrades are the centerpiece of our fiscal year 2017 request of \$694 million that provides the most beneficial and economical use of funding. We must continue to address the enormous backlog estimated at \$1.49 billion at the close of fiscal year 2015.

As our needs grow, we recognize the importance of leveraging staff expertise, collaboration across the agency and engaging in partnerships that have helped to stretch the few dollars that we are budgeted.

Our 2017 request builds on our successes and requests \$165.5 million for major capital projects deemed urgent or immediate. Those include replacing obsolete chillers at the Capitol Power Plant, and eliminating water infiltration on many of our buildings across the Capitol campus.

In particular, we have begun important stone preservation efforts in the Senate extension of the United States Capitol, as well as the Olmsted Terrace, the United States Botanic Garden and the United States Supreme Court.

Also, the Senate underground garage fountains and reflecting pool, and all their associated systems have exceeded their life expectancy and are in need of renovation and restoration, and we expect that to begin just after the January 2017 Presidential Inauguration.

Repairing leaks, corrosion and aging piping systems in the Capitol Building that threaten to affect the operation of that building, and improving life safety systems at the Library of Congress through the second phase of the Library of Congress' Thomas Jefferson Building Exit Stair B, which will increase the capacity to quickly exit people from that building in the event of an emergency.

Failing to address these and other critical projects in the short term will exacerbate the aging process, facilitate new deterioration and failures, and ultimately increase the cost of these repairs.

I look forward to working with the Congress on these priorities, and again, thank you for the opportunity to testify today.

[The statement follows:]

PREPARED STATEMENT OF HON. STEPHEN T. AYERS

Chairman Capito, Ranking Member Schatz, and members of the subcommittee, I appreciate the opportunity to testify today and discuss the Architect of the Capitol's (AOC) fiscal year 2017 budget request.

The AOC values our unique mission to *serve* Congress and the Supreme Court, *preserve* the historic facilities and grounds of the Capitol campus and *inspire* generations of Americans through art and architecture.

Thanks to your support, 2016 promises to be a banner year as several major projects are scheduled for completion. These projects mark important milestones in our ongoing efforts to preserve our infrastructure, enhance the beauty of our historic buildings and improve safety and security for all employees and visitors.

By the 2017 Presidential Inauguration, work on our most visible projects, the Dome and Rotunda restoration, will be complete.



Workers Prepare the Rotunda's Coffered Dome for New Paint.

Work progresses on the restoration of the Ulysses S. Grant Memorial, accessibility improvements to Bartholdi Park and a structural safety analysis on the clouds component of the Alexander Calder Mountains and Clouds sculpture in the Hart Senate Office Building. All of these initiatives are nearing completion.

At the U.S. Capitol Visitor Center (CVC), 2016 will bring the installation of lighter weight entrance and exit doors to ease access for the more than 2 million annual visitors. We are also extremely proud of the CVC's Rotunda App, which was recently honored by ADOBE in their public service category for "Most engaging citizen-facing campaign." ADOBE lauded the App for providing "Videos, infographics, photography, and historical illustrations [that] provide the next best experience to actually touring in person."



Capitol Visitor Center Exterior Door Replacement.

Off campus, we are constructing new storage space for precious Library of Congress collections at the Fort George G. Meade military installation in Maryland.

These examples illustrate the broad range of the AOC's unique mission responsibilities and our focus on strategic investments to update and improve our facilities. They are also compelling examples of the need for a sustained, significant investment in our deteriorating infrastructure. Deferring investment results in critical damage that only gets worse with time. Without immediate attention, problems become costlier to repair, more intrusive to Congress' daily operations and a campus that is less available to our visitors.

PEOPLE FIRST, SAFETY ALWAYS

We take seriously the responsibility to protect the physical and human resources entrusted to our care. Our commitment to excellence is buoyed by our steadfast efforts to maintain a safe, effective workplace for Congress and a welcoming destination that millions of Americans visit and enjoy all year long.



The Capitol Building Paint Branch Puts the Finishing Touches on the Safety Bannister in Preparation for Pope Francis' Visit.

With a staff of more than 2,100, AOC employees are our most precious resource. These highly dedicated and talented employees are sought out by other agencies and by people across the Nation and around the world to share their unique expertise and knowledge. Imparting best practices in risk assessment, and partnering on quality contracting procedures, top notch professionals strive to meet our goals and performance metrics year-after-year.

In order for our employees to succeed and continue to deliver positive results, increased resources are required for necessary projects identified by the AOC. The U.S. Capitol and the buildings that make up the Capitol campus are losing key elements—such as stone, cast iron and bronze—that define these iconic symbols of democracy and are critical to their structural integrity. The resulting impact is that a quarter of our buildings are in poor condition, according to our Facility Condition Index.

Restorations are necessary not only to preserve these symbols of American democracy but also to ensure the health and safety of those who work at and visit the Capitol campus each day. Safety and state-of-good-repair upgrades are the centerpiece of our fiscal year 2017 budget request of \$694.3 million that emphasizes prioritization, effectiveness, efficiency and accountability to provide the most beneficial and economical use of funding.

Our request is a 13.3 percent increase over fiscal year 2016 enacted funding levels and, we believe, the minimum amount needed to begin to address decades of reduced investment and an enormous backlog estimated at \$1.49 billion at the close of fiscal year 2015.

The Building Research Board at the National Research Council recommends a minimum of 2 to 4 percent of the current value of a building be reinvested on an annual basis to reduce the backlog of deferred maintenance. Unfortunately, less than ½ of 1 percent of the value of the buildings within the AOC's purview is currently reinvested in our infrastructure.

While these statistics are unacceptable, we continue to make strides by prioritizing our most urgent needs.

STEWARDSHIP THROUGH PRIORITIZATION

The AOC is keenly aware of how far every taxpayer dollar must go to meet our stewardship responsibilities. As our needs grow, we recognize the importance of leveraging staff expertise, collaborating across the agency and engaging in partnerships that have proven to help stretch limited budgetary resources. There is a balance in addressing repairs and upgrades while also attending to necessary security

requirements, energy-saving projects, code-compliance issues, historic preservation measures and the needs of AOC clients.

Operationally, over the past 10 years the AOC has successfully implemented a plan to exceed the energy reduction target established by the Energy Independence and Security Act of 2007, achieving a 30.9 percent reduction from the 2003 baseline. The installation of over \$90 million in energy conservation measures in our buildings using energy savings performance contracts significantly aided in this effort. These contracts are also great examples of public-private partnerships.



AOC Employees Monitor Energy Usage.

Additionally, in 2013 we began work to implement a shared-service model with the Department of Agriculture's *EmpowHR* Human Resources Information System. By consolidating our efforts and resources, this strategic partnership allows us to curb future operational cost increases.

On the construction side, a redesign of the Bartholdi Park project at the U.S. Botanic Garden resulted in a cost reduction of approximately \$4 million. And in the Hart Senate Office Building, we were able to leverage roof and skylight replacement project efficiencies toward the solar power system installation and the safety analysis of the Calder clouds.



Worker Preparing Part of Alexander Calder's "Mountains and Clouds" Sculpture for X-ray Analysis.

The AOC's investment approach is also focused on the most immediate capital needs and operational requirements. The projects AOC recommends for funding are prioritized through a rigorous analysis, which includes consultation with industry experts and the utilization of best practices. Through this process, in fiscal year 2015 we were able to bring down the capital program backlog by \$61.1 million and prevent our current and future needs from growing at a much larger rate.

The project development process is adjusted annually within the framework of our long-range master plan. Projects are classified according to the type of work the project addresses. Deferred Maintenance (DM) and Capital Renewal (CR) projects

are derived from the Facility Condition Assessment surveys. The Capitol Complex Master Plan is the principal source for identifying new Capital Construction needs as well as major Capital Improvement needs. Urgency, classification and importance result in a Composite Rating used to recommend projects for funding.

Our fiscal year 2017 request builds on our successes, seeking \$165.5 million for capital projects. Of this, \$100.6 million (or 61 percent) is specifically for DM—projects where maintenance, repair or replacement is past due, in some cases significantly. In addition, \$23.4 million (or 14 percent) is for CR projects that will be added to the growing DM list if not funded in fiscal year 2017. The remaining \$41.5 million (or 25 percent) is to upgrade critical safety infrastructure that will improve emergency response capabilities. While significant, our request does not address all of our needs and recommends that \$118 million in capital projects be deferred to a future year.

We are requesting funds for several critical safety projects at the Capitol Power Plant (CPP). To ensure safe and efficient air conditioning and distribution, and reduce the risk of system failure, we need to replace the obsolete 5,000-ton constant speed chiller and cooling towers along with the chillers at the Alternate Computer Facility. These projects will benefit all of the buildings on the Capitol campus along with the U.S. Government Publishing Office, the Thurgood Marshall Federal Judiciary Building, the Postal Square Building, Union Station, the Folger Shakespeare Library and all Legislative Branch information technology systems.



Capitol Power Plant's Aging Chillers.

In addition, the CPP's historic clay tile roof is experiencing structural deficiencies. During storms and high winds, the loose elements of the roof are a safety concern, posing a significant risk of water damaging the offices and the more than \$700 million worth of equipment that is housed at the CPP.

Water infiltration continues to be a major concern. Water has marred the sandstone and marble encompassing the facades of most of our buildings. As a result, the masonry is cracking and spalling and is causing residual damage within the facilities—rusting of steel structures, mold, mildew and energy loss—threatening the health and safety of our building occupants. We have begun the stone preservation efforts on the Senate Extension of the Capitol as well as the Olmsted Terrace, Russell Senate Office Building, U.S. Botanic Garden and the U.S. Supreme Court. Intensive studies on the remaining buildings are nearing completion, which will allow us to identify future needs.



Damage to Exterior of the Hart Senate Office Building.

In the near term, we must address the growing safety risks to personnel and property due to the deterioration of the parking garages on the Capitol campus. The Senate Underground Garage, fountains, reflecting pool and associated systems have exceeded their life expectancy and are in need of renovation and restoration.

The domestic water, storm, sanitary and vent piping in the U.S. Capitol Building has deteriorated to the point where frequent repairs are required due to leaks, corrosion and pipe aging. Continued deterioration and leaks may affect operations of building systems and facilities leading to a whole or partial shutdown of the building.

At the U.S. Botanic Garden, continued deterioration of the greenhouse superstructure does not support the current and expected mission requirements of the USBG's world renowned and rare plant collections. Without the addition of a quarantine facility, the USBG runs the risk of introducing a pest or disease, which could be catastrophic to the broader collection.



AOC Safety Employees Provided DC Firefighters With Familiarization Tours of the Library of Congress Buildings.

Several projects in the Library of Congress buildings are necessary to address urgent life-safety needs, including the second phase of the Library of Congress' Thomas Jefferson Building North Exit Stair B, which will provide increased capacity to quickly evacuate the building in an emergency. If the deficient egress capacity is not corrected, the building occupants will not have the number of available exits required by code for the building. In addition, we are seeking to replace an emergency generator in the Thomas Jefferson Building; modernization of elevators in the John

Adams and James Madison Memorial Buildings and repairs to ensure the John Adams Building garage is fully operational and provides ADA compliant access.

Failure to address these critical projects in the short term will exacerbate the aging process, facilitate new deterioration and system failures and increase the cost of repairs. Our fiscal year 2017 budget request steers us away from this unadvised and dangerous approach and builds on our growing list of successes.

CONCLUSION

This fall, we will begin work in support of the 2017 Presidential Inauguration. The Inauguration is a time for us to showcase American democracy, and we are proud that the restoration of the Dome and Rotunda will be complete.

As a passionate advocate for the Capitol campus, I believe that with Congress' support, we can build on our successes and remain a strong and healthy symbol for America's growth and prosperity.

The U.S. Capitol complex houses numerous symbols of an elected government created to *serve* the American people; where representatives from all corners of this great Nation gather to *preserve* the ideals and tenets of our Constitution and where we *inspire* citizens to take up the mantle of democracy and freedom.

While we exercise our faithful stewardship and fiscal responsibility, we appreciate the support of Congress to provide us with the resources needed to support these lofty goals.

CAPITOL DOME AND EXTERIOR STONE RESTORATION

Senator CAPITO. Thank you very much. Good news on the Dome, absolutely. We look forward to seeing it restored to its beauty. It is a wonderful symbol of our freedoms. Thank you for the work on that.

I understand the scaffolding around the Capitol will come down for the inauguration and go back in another area, is that correct, where it is on the Senate side now? It then will be completed there, and then where do you move from there?

Mr. AYERS. Yes. First, on the Dome, this month we have started the removal of the scaffolding and we will take off 8 levels of scaffolding. That should be complete by the end of this month. The remainder of the scaffolding on the Dome will stay there through about July, and then it will come down. Of course, the scaffolding in the Rotunda comes down during the State work period in August.

I think you were mentioning the stone conservation work on the Capitol Building, which is on the north extension now, and you are absolutely correct, that comes down before the January Presidential Inauguration, and right after the inauguration, a different portion of that scaffolding will go up and we will continue that work over the next several years.

Senator CAPITO. What is the status of the Grant statue restoration? Will that be down by the inauguration, too?

Mr. AYERS. Absolutely. We are about 85 to 90 percent complete with that work. We had to stop during the cold winter months. We are looking forward to warmer temperatures and having our contractor back on-site this spring. We are well ahead of schedule, and very confident we will have that done before the inauguration.

WORKING CAPITAL FUND

Senator CAPITO. That is good news as well. Thank you. That is a well trafficked area during the inaugural activities.

I have a question about a legislative language request that you are making, and that is to establish a working capital fund. We talked about it briefly. You do not have it now. The reasoning that

you have given is with your current accounting system, you cannot quite get your construction dollars out economically and efficiently.

I am going to be honest with you, a working capital fund sounds to me like a pot of money that may not have the oversight or the constraints that you have expressed that are within your budget right now. I understand that maybe you are feeling hemmed in by it, but at the same time, in this time of fiscal constraint and when you read from other agencies across the Government of misappropriations or sloppy recording, a working capital fund, I do want to open the door to anything of that nature.

So, could you explain specifically why you are asking for this, and how much money you would envision would be in this, and where that money would come from?

Mr. AYERS. Sure, I would be happy to. It is an important initiative for us, and it is a very cumbersome and complicated accounting process for us. We have 200 employees that work in our construction division, and those employees receive no appropriated dollars. They do work across our 10 appropriations and are reimbursed by those appropriations as they do work, whether it is here in the Senate or in the Capitol or the Botanic Garden or Library of Congress.

When one of them conducts work say here in the Senate, they incur liabilities because they receive benefits. Those liabilities may be annual leave or sick leave, or whatever other benefits or liabilities they are incurring.

They may not take those liabilities or we may not need to pay those liabilities for 6 months down the road or 3 years down the road. So we have to keep that account here in the Senate open after that project has been complete, we will keep it open for 6 months or up to 3 years or more until that liability is expensed out of that account.

That is just an accounting nightmare. Thousands of transactions across hundreds of accounts. A simple way to fix that is a working capital fund. It is not a fund that would build up any money. The only money that would be in that fund are the liabilities that these 200 employees would incur. We think that is perhaps less than \$5 million.

Senator CAPITO. So, you are not actually building up a working capital fund the way I am envisioning, in other words, millions of dollars into a working capital fund so that if somebody comes in and performs some work, you can pay them in 20 days as opposed to going through the Government bureaucracy of maybe a 60 day pay, that is not it?

Mr. AYERS. No, absolutely not.

Senator CAPITO. It is an employee benefit working capital fund?

Mr. AYERS. It is a fund that pays the liabilities and we are able to pay those liabilities out of that fund. Nothing would change in the way we do business now in terms of how we conduct our construction work. To do a project here in the Senate requires that your subcommittee approve of that money, that will not change, requires the Committee on Rules and Administration approve of the project, that will not change.

The Congress has to approve it. We will perform the work and bill this appropriation which will then reimburse the account.

Senator CAPITO. Do you know of any other agencies that have a working capital fund that is structured like this?

Mr. AYERS. Working capital funds are a fairly common thing in the Federal Government.

Senator CAPITO. So, this is a common practice, like if I were to have asked the Librarian of Congress, he might have a working capital fund?

Mr. AYERS. That could be, yes.

Senator CAPITO. Okay. Thank you. Senator Schatz.

Senator SCHATZ. Thank you, Chairman Capito, and thank you Mr. Ayers, for your excellent work on the Capitol grounds.

Before I get started, I just wanted to say it is easy for elected officials to denigrate the investment in the physical plant around the United States Capitol, but we have millions of visitors, and it is important that we continue to invest in our physical plant. I appreciate the job you do.

But I want to set the context here. You are asking for \$694 million in fiscal year 2017. We have people here who are not able to be here because they are working, 86 employees in particular. The lowest hourly wage for people who work for the United States Senate and are tipped is \$10.50. For non-tipped employees, it is \$13.30.

As you know, we have been working very hard to make sure they got a little bit of a bump in pay. What happened was when we thought we came to a resolution, in my opinion, Restaurant Associates improperly, intentionally, and systematically misclassified employees.

What that looks like is if you get a bump in pay, then suddenly they decide that you are no longer doing the job that you have been doing for 2 or 3 years. They say sign this document, certify that you are no longer a cook but rather a food service worker. I may be getting the particulars wrong.

That is what they did. I found it totally outrageous, and I am not alone. Members of the Senate on both sides of the aisle found this to be outrageous.

I want to know where we are in that process. I will just say this, before you get into where we are in this process, I do not think it is Members of the Senate's job to serve essentially as labor lawyers for 86 individuals.

I think it is your job to ensure contract compliance, and it is Restaurant Associates' responsibility to not just go by the letter of the contract, but to understand they have a special obligation to their employees who are not paid enough to even live in the city where they work.

So, what are we doing specifically to remedy the situation for these employees, but also what are we doing on a going forward basis?

Mr. AYERS. I certainly agree with your comments completely. You know, we modified that contract and made a change in the pay rates, and we thought we were doing a good thing, only to be surprised just a week or two later to find out that the pay rates that we had adjusted to were not being implemented.

Immediately, six employees came to our attention, and we spoke with Restaurant Associates about those six employees. They agreed

they were misclassified and they reclassified them, and provided them back pay.

That, of course, raised our suspicion and the suspicion of many Members of the United States Senate, and we went about interviewing employees that worked for that vendor here in the Senate as well as the Capitol Visitor Center.

We did not find any issues with job classification for those employees that worked in the Capitol Visitor Center. For those employees that were working here in the United States Senate, we had questions and concerns with 51 of those employees after we finished about 90 interviews with them.

We have worked with Restaurant Associates and brought to their attention what our concerns were with those remaining 51 employees. They have changed the classification of 35 of them to date, and that leaves 16 on the table. Those 16 are broken into two groups. The first group are eight that Restaurant Associates wants to talk with us about. We began those discussions on Friday, and have come to agreement on two or three of the eight to date.

Senator SCHATZ. Are they treating this like they are in litigation with you? I mean, it sounds as if they are resistant at every step of the way.

Mr. AYERS. I think they changed 35 right away without any discussion, after we showed the results of our interviews. There are 16 that are left on the table that they want to talk about, eight of those they want to discuss, and eight we completely disagree on. Those eight we disagree on, we think the only way to resolve that is to refer it to the experts at the Department of Labor, which we have done and Restaurant Associates has done.

There are eight remaining—

Senator SCHATZ. Are you confident that they are complying with the terms of the contract?

Mr. AYERS. I do not think they have been. These misclassifications, it seems to me, are not in compliance with the contract, and not in compliance with the modification we issued on December 18.

Senator SCHATZ. Are you exploring all of your options with respect to the contract?

Mr. AYERS. Absolutely. You know, I think we need to get the results. We are at the end of our review. The Department of Labor is also reviewing this. We need to see those results. We need to have all the facts in front of us. Then we need to do what is right from a contractual perspective.

Senator SCHATZ. Thank you.

DATA CENTER RELOCATION

Senator CAPITO. Thank you. I would encourage the direction that you are going and associate my feelings with the ranking member. I mean, we have many of these folks in the audience with us today, and we have submitted their written statements at Senator Schatz's request. Hopefully, we can have a very favorable resolution to this issue.

I would like to ask about the data center relocation. You might have heard me ask the Library of Congress Acting Librarian. You also have in your budget \$3.9 million for relocation to a new facility

of the AOC data center. Again, it sounds like House Information Resource is pushing this move.

Would you have reached this decision without specific direction from the House, and do you believe it is necessary for you to relocate your data center, and what criteria are you using for this?

Mr. AYERS. Thank you. In 2013, we actually did relocate our data center from a space in the Ford House Office Building to be co-located with HIR, the House Information Resource.

Senator CAPITO. Right, and they are leaving their space.

Mr. AYERS. Yes. That essentially, from my perspective, tied us to the hip of HIR, so if HIR is moving, we felt it appropriate that we needed to move with them. I think that provides ultimately some benefit of being co-located in one data center.

I think there are options on the table for us. It is not imperative that we move, but we certainly think it would improve our service, it would improve our ability to ensure that data is readily available to us during emergency situations.

LEGISLATIVE CALL SYSTEM

Senator CAPITO. Yes, I agree with that, and I do see when you are sort of tied with another agency how it is difficult to unwind and something could be much more expensive for you as well.

My last comment will be one of your multi-year requests is \$1.4 million for a new legislative call system. That is going to be a sad day when those bells and lights go away, but none of us really know what they mean now anyway.

I do not know if you have already envisioned what kind of replacement you are going to make with that, I understand some of the parts are antiquated and cannot be replaced, it is a system obviously that is from the old school time.

What is your vision there, and will there be follow on requests for dollars to help you move through with that project?

Mr. AYERS. We do not think there will be follow on requests to complete the study. We think that the money that we have available will enable us to study what alternatives are out there, and to work closely with the Clerk of the House and the Secretary of the Senate to find some new technology that will enable us to perform the same function.

The clock system we have today, that manufacturer has stopped making the parts for that. We have about 4,000 of them across the Capitol Campus. We have bought several spares that we can keep the current system going for a year or two while we carefully and methodically study what alternatives are out there.

We do not have any preconceived notions about what that might be. It could be a simple replacement of what is there or we may suggest moving completely to television and iPhones and PDAs.

Senator CAPITO. Yes, that is what I was going to suggest, some sort of Smartphone app. We are relying on that anyway to alert us. I would not recommend shock collars. I do not think we would be in favor of that one.

Anyway, thank you very much for what you are doing. I cannot wait until the trees bloom and all the Dome is clear from construction. It makes Washington a beautiful city, and it makes this campus beautiful, and you work hard to do that. So, thank you.

Mr. AYERS. Thank you.

ADDITIONAL COMMITTEE QUESTIONS

Senator CAPITO. All right. Thank you, Mr. Ayers, to you and all the staff of the Architect of the Capitol for your time today. The hearing record will remain open for 7 days, allowing members to submit statements and/or questions for the record, which will be sent to the committee by close of business on Tuesday, March 22.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO DAVID S. MAO

QUESTIONS SUBMITTED BY SENATOR SHELLEY MOORE CAPITO

INFORMATION TECHNOLOGY SECURITY

Question. The Library's request includes \$6.6 million and 5 additional full-time-equivalents for Information Technology Security Enhancements. What security enhancements will this funding provide and why are 5 additional FTE's necessary?

Answer. The two main enhancements are: the design and deployment of two-factor authentication for all Library users, and the coordination of all IT Security functions within the Library.

The 5 additional FTEs are necessary to assure oversight across the Library's five mission units in the Library's effort to manage IT Security functions. These FTEs would act as subject matter experts for the program by providing guidance and serving as expertise on crucial systems, such as Congress.gov.

Question. Does this request respond to the recommendations that GAO made in its March 2015 report on the Library's need to address serious information technology management weaknesses? Will this close out all recommendations by GAO? If not, what is the Library's plan for addressing the remaining recommendations?

Answer. The Library's fiscal 2017 request addresses several recommendations in the GAO non-public report.

Funding this request will not close all recommendations but will be a good step forward to ensure that the pertinent non-public findings are closed and that they do not occur again. There are many other areas addressed in the GAO audit that are not IT security centric. The Library is currently working on all audit recommendations at this time and meets with the GAO audit team weekly.

Question. Recognizing that there are many different offices throughout the Library, including the Congressional Research Service (CRS) and the United States Copyright Office, each with its own unique IT needs, what are you doing to ensure that the individual needs of each of the divisions within the Library are being met?

Answer. With respect to IT Security, this request will assure that all business units within the Library have both secure access to Library resources and trained IT Security staff managing the IT Security activities for their systems. In addition, business units will no longer need to contract out security functions for experts to serve as Information System Security Officers (ISSOs). The OCIO will perform this function for all business units within the Library.

Question. If the Library's Salaries and Expenses account were held to the fiscal year 2016 enacted level of \$419.6 million, would the Library prioritize these IT enhancements from within that level of funding, at the expense of other needs? If the Library simply could not absorb this cost, what would be the impact to the Library's programs and services?

Answer. If funding was not approved for both security enhancements, the Library would not be able to absorb the costs related to implementing the initiatives. Therefore, the Library would remain in the same security posture. Two factor authentication would not be provided to all Library users and IT security functions would not be centralized. Both of these enhancements are recommendations stipulated in recent GAO and Library of Congress Office of Inspector General audit reports.

MAKING CONGRESSIONAL RESEARCH SERVICE REPORTS PUBLICLY AVAILABLE

Question. I understand that some CRS reports are currently on the “Congress only” version of Congress.gov, so how difficult, time-consuming, or costly could it be to put the reports on the public version of Congress.gov?

Answer. CRS reports are currently only published on CRS.gov, a Web site restricted exclusively for congressional use. The site is linked to a number of other congressional sites within CapNet, such as the Congress-only side of Congress.gov, Webster and HouseNet, but the content is only available in CRS format and to members and staff who can access CRS.gov.

To ensure network security, CRS reports would have to be added separately to the public facing section of Congress.gov. Doing that would require a level of effort—and cost—similar to adding reports to GPO’s FDSys.gov. There are some technical complexities and cost considerations that would have to be addressed to facilitate publishing on a different site, such as modifying report formats and coordinating metadata requirements. There also may be potential impacts and unintended consequences on CRS that have a financial impact.

Question. The greatest concern that I have about making the CRS reports publicly available, from an appropriations perspective, is the potential for increased costs in terms of CRS personnel and hours spent on these reports. Would additional personnel really be necessary in order to make CRS reports “ready” for public consumption?

Answer. Yes. If Congress decides to make CRS reports available to the public, some number of technical staff would be required for a limited time to reconfigure how CRS products are produced and to ensure the metadata necessary for the products to be incorporated into another site are present. There may also be a long-term need for additional staff at CRS to respond to public inquiries about its products.

Question. If the decision is made to put certain CRS reports on the public side of Congress.gov, what has to be done differently within CRS and why?

Answer. For years, CRS has made organizational and technological decisions based on its mission to work exclusively for Congress and the long-standing prohibition on publishing CRS work for the public. From the structure of the CRS workforce to the design of CRS.gov and the format of reports for use within the closed CapNet environment, CRS products and procedures were created to support Congress, not to facilitate publishing information for the general public. A number of changes would be required in how CRS operates to provide content for the public while protecting the core values that make CRS particularly valuable for Congress. For example, the pdf and html versions of every CRS report contain its author’s contact information to enable members and staff to easily contact the expert on that issue directly. That would not be sustainable in a more public setting.

To ensure data security, CRS reports would have to be added separately to the public facing section of Congress.gov. From a purely technical point of view, doing that would require a level of effort—and cost—similar to adding reports to GPO’s FDSys.gov.

Internally, to ready CRS reports for public release would require modification of the CRS publishing process; including redacting author contact information for publicly available reports, ensuring reports meet the formatting requirements of Congress.gov and creating the metadata required by the site for indexing and searching. If CRS is required to publicly release other general distribution products, such as blog posts, videos, infographics, or the Appropriations Status Table, additional technical hurdles would have to be overcome, including the need to completely reformat much of that material.

One provision of the recently introduced legislation calls for the ability to track the version history of CRS products. Depending on how that would be implemented, CRS could have to redesign its authoring and publishing tool to allow for that capability.

CRS would also have to adopt new policies and procedures and dedicate additional resources to ensure that Congress remains the primary focus for CRS work, and to mitigate the impact that an increased public profile would place on the Service and its experts.

Question. How many additional people would be necessary and why?

Answer. The total number of additional staff and their duration would ultimately be determined by which CRS products are made public, and how they are made available. To make just CRS reports public, the Service anticipates requiring at least four temporary IT specialists for a minimum of 120 days to establish the new publishing process and prep the repository of over 8,000 CRS reports for release. The Service would also likely need to permanently expand its communications staff.

If CRS is required to make additional products public, additional resources would be required.

Question. What are some of the benefits to making CRS reports publicly available? Have you considered developing a mobile app like GAO?

Answer. Since CRS products have not been made widely available to the public by Congress previously, the benefits are uncertain at this time. Proponents state that the public release of CRS products will lead to a more informed electorate. They also believe that because taxpayers pay for the products, they should have immediate and direct access to them. It has been asserted that public release of CRS products would lead to easier access for members and congressional staff; although that benefit may be offset by the potential reduction in congressional use of CRS.gov, which hosts other features intended exclusively for Congress, including registration for CRS events, place a request functionality, a directory of CRS experts, and other CRS products.

CRS has explored options for the creation of a mobile app, however, constrained resources would limit the creation of an app in the near future.

Question. The bill introduced by Senators Leahy and McCain includes a specific section that states there will be no effect on the Speech or Debate Clause and that all confidential communications between a member, committee or office of Congress and CRS will be kept confidential. I have consulted informally with the Senate Legal Counsel and have an understanding that Sec. 6 Rules of Construction, (a) No Effect on Speech or Debate Clause, included in this legislation appears to “negate any concern about the effect of publication of CRS reports online on Speech or Debate Clause immunity afforded to members or staff, including CRS employees.” There is clearly congressional intent to maintain this protection and that intent should be considered if any judicial challenges are issued. Do you believe that if this language were included in any final legislation regarding the publication of CRS reports that it would eliminate the Speech or Debate Clause concern for CRS?

Answer. CRS’s confidential relationship with Congress is crucial for its ability to best serve the institution. If members lose trust that their interactions with CRS will be held in confidence, they may not utilize the Service to inform their legislative decisionmaking.

With that in mind, no, the proposed language would not eliminate the Speech or Debate Clause concern for CRS or for Congress. The language would certainly make it clear that Congress is seeking to continue the protections CRS has traditionally been granted, and, as noted, that intent should be considered if there are any judicial challenges. However, there is no established consensus among legal experts on whether a court would uphold the privilege if CRS is seen as a direct provider of its publications to the general public.

The loss of CRS’s Speech or Debate immunity could have a number of consequences for both the Service and Congress, including:

- CRS analysts potentially being required to publicly testify regarding their work for Congress, including their conversations with members and staff;
- CRS research, including background notes and observations, may be included in court discovery processes; and
- The General Counsel for the House of Representatives and the Senate Legal Counsel may be required to expend significant additional time and resources in trying to defend CRS against judicial and administrative proceedings.

CONGRESSIONAL RESEARCH SERVICE FULL-TIME EQUIVALENTS

Question. Following my meeting with Mary Mazanec last month, I had several additional questions about CRS employees and salaries and I wanted to thank CRS and the Library for coordinating such a quick response to my questions. As a follow-up to those responses, I note that CRS is a top-heavy organization with 493 staff, out of the current 594 total this year, at a grade level of GS-12 and above, including Senior Level Managers and Specialists. The fiscal year 2017 request includes funding for an additional 22 FTE’s, each at a grade level of GS-12 or above. Why is it necessary for CRS to be so top-heavy and to want to continue to grow the organization at the top?

Answer. Very early in the history of CRS, Congress made the decision to support the development of high level expertise in the Service. The CRS workforce is designed to provide Congress with in-depth research and analysis expertise equivalent to what is readily available to senior leaders in the executive branch and elsewhere.

CRS analysts and attorneys must be able to exercise independent judgment, perform work of exceptional difficulty and responsibility in complex and highly technical legislative areas. They are expected to interact with, and command the respect of, high level Government officials, as well as industry and academic leaders. These

skills necessitate that CRS maintain at its core experts at higher grade levels in order to provide Congress with independent expertise on par with the knowledge of high-ranking Government officials, think tanks, international experts, lobbyists, and others involved in the production and analysis of legislation.

With constrained budgets—and evolving demands from Congress—CRS has restructured its recruitment strategy over the last few years to bring in more entry-level analysts. The Service has also created new position types—such as research assistants—to bring in highly talented staff at lower levels to assist analysts and address the high volume of work generated for CRS by members' constituents' inquiries to their district and DC offices.

However, currently CRS's bench is only one deep in many subject areas. To meet the full range of congressional needs in those areas, CRS must maintain senior analytical staff capable of addressing any question that may arise; from basic informational inquiries to those requiring nuanced in-depth analysis. Complex policy analysis and legislative work once performed by senior committee staff, whose positions have been reduced or eliminated altogether under congressional budget constraints, has fallen largely on CRS to accomplish now. This work, as you know, requires high levels of professional accomplishment and expertise.

In CRS, Congress has at its disposal dedicated, specialized experts that member and committee offices would have difficulty maintaining on their own. Not only is maintaining that high-level expertise within CRS as shared staff for the entire Congress more cost efficient, it also provides a synergy to the research and analysis that is available to all members and congressional staff. To fulfill its mission, as it currently stands, CRS needs to be able to continue to build and enhance its research capacity with staff capable of meeting fully the needs of Congress as it contends with increasingly complex issues.

COPYRIGHT IT MODERNIZATION

Question. The total estimated for the IT Plan is \$165 million over 5 years. At the conclusion of the implementation period, the Plan anticipates that operating costs would require an increase in the Copyright Office base budget of approximately \$25 million in fiscal year 2023 and beyond. How confident are you in the estimate of \$165 million for the total IT Plan, given that you are seeking “full budget control” and “contracting authority,” which may require additional staff, as well as unidentified “unwind costs.” If you add those costs in, then what would be the cost per fiscal year for each of the 5-years of implementation and the out-year base increase to the Copyright Office?

Answer. At Congress' direction, the Copyright Office was pleased to develop and provide to Congress its Provisional Information Technology Modernization Plan and Cost Analysis (“Provisional IT Plan” or “The Plan”) in February 2016, which envisions a “21st century copyright organization,” that includes a “robust modern [IT] operation.” The Provisional IT Plan recommends a “clean slate” approach to Copyright Office IT—an approach that is not uncommon when retiring legacy systems and minimizing the impact of sunk costs and siloed projects. The Plan assumes ongoing innovation and evolution by prioritizing the flexible cloud technologies that are common in the copyright marketplace, while minimizing the need for a capital-intensive fixed data center. It was developed after a prior multi-year public process into modernization needs, and with the support of a leading consulting firm, Deloitte Consulting LLP, which was subsequently validated by Gartner, Inc.

The Provisional IT Plan considered a wide array of variables in developing cost estimates, and included a number of contingencies of up to 35 percent for certain expenses to account for potentially shifting costs. The Copyright Office has also considered the costs necessary for full budget control and contracting authority, both of which are essential if Copyright Office appropriations, including customer fees, are to be utilized nimbly and to the maximum potential for the Nation's copyright system. The costs for these considerations are anticipated to be modest, and likely could be absorbed from the current Copyright Office base budget. This, however, assumes that the Copyright Office would share certain services with the Library, including financial management programs.

Question. The IT Plan assumes approval in fiscal year 2017, with the first year of implementation funding being requested in fiscal year 2018. Are there costs included in the fiscal year 2017 budget request associated with “year zero” for getting this Plan off the ground and ready for a first year budget request in fiscal year 2018? What are the cost increases if the Plan is not approved in this budget cycle? What happens if the Committee can only fund a portion of the plan due to budget constraints?

Answer. The Provisional IT Plan currently is set to a 5-year timetable beginning primarily in fiscal year 2018. This timeframe was selected because it necessarily follows the Copyright Office's broader strategic plan finalized in December 2015. Moreover, the fiscal year 2017 budget was already in process when Congress directed the Copyright Office to analyze what was needed for a modern copyright IT enterprise, including engaging its customers on both the timeline and funding strategies. That said, if Congress agrees with the Plan (it reflects a multiyear process and early indications show that customers appear to support it), the Copyright Office could recalibrate its fiscal year 2017 request to maximize activities that should be done in advance of 2018 activities. In this scenario, the Copyright Office would still apply funding to certain functions under the current state, including legacy systems, but could redirect as much funding as would be practical for the future state. It is also the case that, with additional fiscal year 2017 funding, the Copyright Office could begin implementing 2018 activities a year early. Although we recognize that the Committee's resources may be limited, we have not yet completed a funding strategy, and would like to discuss funding in detail after we have received public comments (including with regard to fees) and completed our analysis.

Question. What is your Plan B if you don't receive approval for this Plan?

Answer. The Copyright Office firmly believes that upgrades to its IT system are crucial to allow the Office to ably support the global trillion-dollar copyright economy and the public at large that it serves. The Office's core IT business system is already more than 8 years old and has not had its technical architecture upgraded since it was launched. The Copyright Office developed the Provisional IT Plan in response to a congressional directive to assess how best to achieve a robust and modern IT operation that would enable a 21st century copyright organization. The subsequent plan built upon the previous 4 years of study, public engagement, and analysis of technological needs, with the assistance of outside contractors to help assess the most cost-effective and efficient IT solutions. Certainly, if there are aspects of the Provisional IT Plan that Congress does not believe are feasible or desirable, the Copyright Office will work with Congress to reprioritize its needs and further investigate how best to serve the copyright system. If no upgrades are approved, however, the U.S. copyright system will continue to lag dangerously behind its global partners, with real world negative impacts for the copyright industries and the general public.

Question. This plan appears to assume that the Copyright Office is a separate and distinct entity from the Library versus examining where there may be cost efficiencies of shared servicing with the Library. Given that the Library is also undertaking major IT modernization efforts, did you cost out options of shared servicing with the Library?

Answer. The Provisional IT Plan is designed to be flexible and states explicitly that it may be "implemented according to a variety of governance protocols, approvals, and controls between the Copyright Office and larger Library of Congress." The Provisional IT Plan does, however, describe a modern IT system that enables management of Copyright Office IT directly by the Copyright Office, which is most familiar with the needs of Copyright Office staff, Copyright Office customers, and public demand for Copyright Office services. This approach optimizes the Copyright Office's IT resources and investments, which cannot be accomplished unless the Copyright Office is able to analyze all potential solutions, including those outside of the Library. That said, there is and should be appropriate coordination and/or collaboration with the Library on these issues. This includes looking into shared services with the Library and other Government agencies, some of which could be free or subsidized. In fact, whether and when the Library plans to charge the Copyright Office for services will be a key consideration vis-à-vis other vendors.

Question. Typically, Congress has not found that low-end-of-estimates pan out, therefore the higher estimate of \$190 million may be more realistic; however, I'm concerned that it still might be low given the magnitude of the project. In the current flat budget environment, how do you propose that we take on such a costly modernization project? Are Copyright customers prepared to fund all of those costs? What would be the fee increases necessary to fund these costs and what happens if you don't have the copyright volume to support the funding need?

Answer. The Copyright Office cannot administer the Nation's copyright laws effectively if it does not have the resources to do so. However, it should be understood that the Copyright Office is not asking for \$190 million in taxpayer support. Rather, the Provisional IT Plan presents a cohesive framework that would ensure ongoing evolution and likely would increase participation, including from paying customers. The Provisional IT Plan speaks to a nimble Government platform for all kinds of transactions and data exchanges that are in the Nation's interest.

At the request of the Congress, the Copyright Office has issued a set of public inquiries soliciting comments on future funding strategies, including for capital costs, and looks forward to sharing the results of this as well as its recommendations next month. The Office agrees that copyright owners have a role to play in funding the services they receive. It would, however, be a departure from practice as well as from the current language of the Copyright Act to require copyright owners to fund the entirety of the Office's costs in administering the varied provisions of the Copyright Act, many of which benefit customers on the back end, i.e., those that utilize the granular data in copyright records to build businesses or otherwise contribute to the commercial economy or cultural heritage of the United States. Moreover, copyright registration is voluntary; while there are incentives built into the law, a key goal is to find the right balance between attracting maximum participation in, and contributions to, the public record and providing a sustainable funding model. Again, this is not to say that some copyright owners could not or would not pay more for better services.

The Copyright Office looks forward to working with Congress to potentially update its fee authority, create a revolving fund, ensure multi-year spending, build a robust reserve account, build in further safeguards for small authors, and find other strategies that will help us to continuously innovate and evolve. Some of these initiatives would require revising the Copyright Office's statutory fee authority; it also is possible that certain modernization activities, including automating recordation functions, would eventually require technical adjustments to the law.

Question. The Government is not always the best at managing service level agreements of contracted services. It is highly likely that in the future an agency would have to move from one cloud provider to another in order to improve service, or find a new provider if one goes out of business. Has Copyright identified what such a move would cost? Is this a cost that would have to be built into the fees for cost recovery?

Answer. The Provisional IT Plan leverages cloud-based services because they are scalable and flexible, and, if the Copyright Office is able to control and manage its IT systems, more able to provide constant information on how the technology is working. The Plan assumes a mix of public and private cloud services because this strategy both minimizes risk and best reflects the diverse responsibilities of the Copyright Office under the Copyright Act. This approach is not only generally less expensive than maintaining a physical data center, but also allows the Copyright Office to move quickly to accommodate new trends and technologies. The Plan's suggested architecture provides for relatively easy migration from one platform to another as required. In doing so, it accounts for the fact that different parts of the Copyright Office carry out different duties and allows for relatively easy migration.

QUESTIONS SUBMITTED BY SENATOR CHUCK GRASSLEY

LIBRARY OF CONGRESS

Question. Mr. Mao, creators seeking to register their works cannot do so without a functioning Copyright Office system. Last summer the Library experienced a costly 9-day outage of the copyright registration system when the Library's Primary Computing Facility (PCF) was shut down during the Architect of the Capitol's annual fire and safety check, and the copyright community was particularly affected.

In your testimony, you state that the fiscal year 2017 budget request is intended to address the most urgent shortfalls in key infrastructure areas—one area being technology.

A major focus of this budget is to modernize computing capability, with the Library having plans for a 3 year investment in building its primary computing facility away from Capitol Hill. Recognizing that a recent study found that copyright industries—those which are primarily engaged in creating, producing, distributing, and exhibiting copyrighted works—contribute over than \$1.1 trillion to the country's GDP, it is critical that IT improvements for the Copyright Office are a priority.

Will the Library prioritize the improvement of the Copyright Office's IT infrastructure and explain where improvement of the Office's IT system fits within the Library's overall plan to modernize its computing capability?

Answer. With Library's fiscal 2015 realignment and development of a reinvigorated strategic plan, the Library is now focused on transition and modernization. Modernization of the Copyright Office is at the forefront of that focus. Modernizing the Library and Copyright Office begins with an information technology infrastructure buildout. The Primary Computing Facility (PCF) request in the fiscal 2017 budget is at the heart of that buildout. The PCF not only mitigates national security

concerns by adhering to the concept of moving Capitol Hill Data Centers outside of 300 miles, but it provides more than enough capacity and capability for all of the Library's information technology operations. The PCF provides the Library with a state of the art Tier III facility with the resilience required to mitigate shutdowns and provide significant room for growth. Once moved, the next step would be to focus on funding for the new Copyright applications that are described in Copyright's Provisional Information Technology Modernization Plan which was recently distributed.

Question. In order to serve copyright owners and the copyright community, a modern Copyright Office IT system must be lean, nimble, results-driven, and future-focused. Currently, the Copyright Office is unable to offer the ability to register works through mobile devices or apps, or to connect via an API to search public data in real time. Their recordation system is paper-based while their registration system is tied to a proprietary product, a federally owned data center, and dated underlying architecture.

In an effort to remedy this situation, the Copyright Office has engaged in a years-long process, beginning in 2011, which has sought public input and assistance from multiple consulting services. The result is the Copyright Office's Provisional Information Technology Modernization Plan, submitted to the House of Representatives and dated February 29, 2016, which calls for a comprehensive modernization plan to meet the needs of the Office's customers.

The Library seeks funds in its fiscal year 2017 budget to modernize its computing capability. Please share the analysis that went into Library's decisionmaking process to update its IT infrastructure. What kind of comments and input did you invite from Library and Copyright Office constituents and stakeholders, and other experts during this process? How does the Library reconcile its own approach to deploying an improved technological infrastructure to undergird a modernized copyright system, with the years-long, substantive approach taken by the Copyright Office—which has received significant input from the copyright community?

Answer. A significant body of analysis has been developed during the last several years of Library of Congress Inspector General audits, the Government Accountability Office public and non-public reports as well as numerous assessments from Deloitte, Forrester, and other industry experts, all of which contributed to the future vision of the Library's infrastructure requirement. The Copyright Office Provisional Information Technology Modernization Plan represents a comprehensive body of work that provides a clear vision and direction for modern Copyright Office applications that the Library fully supports and will be seeking to integrate funding requests for in future budgets. With the creation of the Library's Office of the Chief Information Officer and an IT Strategic Plan and Investment Process the Library has laid the groundwork for methodically implementing IT modernization for all operations of the Library. Once the IT infrastructure is in place, the applications for process modernization, if funded, can be developed and installed. The Library believes the most efficient way to provide the IT infrastructure capacity is through implementation of the proposed PCF relocation. This will provide a resilient Tier III capability with ample room for growth and security.

CONCLUSION OF HEARINGS

Senator CAPITO. This concludes the Legislative Branch Appropriations Subcommittee's hearings regarding the budget requests for 2017.

I want to thank the ranking member for his service, but also for his attention to all the details that are going on. He does a great job. So, thank you.

Senator SCHATZ. Thank you.

[Whereupon, at 3:52 p.m., Tuesday, March 15, the hearings were concluded, and the subcommittee was recessed, to reconvene subject to the call of the chair.]